The graduate program in architecture is relatively new, with its first class entering in 1993. However, the School of Architecture, with its professional Bachelor of Architecture program, celebrated its thirty-fifth birthday in 2000. In addition to the undergraduate and graduate programs in architecture, the college also offers an undergraduate major in interior design. All professional programs in the college are fully accredited, enabling graduates to pursue licensure throughout the United States.

The graduate program in architecture is a first professional degree program. It is designed to accommodate students who come from a variety of academic backgrounds and interests. This includes students who have had little or no previous formal study in the field of architecture but have discovered a deep and abiding interest in the subject. The program also accommodates students who have had an architectural education but have not completed the requirements for a professional degree. These students may receive advanced standing in the program.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards. Master’s degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The Master of Architecture program at the University of Tennessee received a full six-year accreditation as a result of its last NAAB accreditation review in 2002. The graduate program in architecture defines architecture broadly as the creation of human habitats. Architecture at Tennessee is more than the design of individual buildings. Rather, it is dedicated to the shaping of community in the fullest sense of the word. The curriculum reflects the program’s recognition that architecture is fundamentally shaped by environmental and cultural forces. As such, the humanities, social sciences, arts, and applied sciences are all brought to bear on the discipline of architecture. It is through design that such issues can be thoughtfully explored and given physical form. Thus, design plays a central role in this comprehensive and creative process.

As a professional program, the college is committed to help students obtain the requisite knowledge and skills needed to enter and fully participate in the profession of architecture. At the same time, it attempts to maintain a wide vision and critically reach beyond the profession without losing contact with the realities of everyday architectural practice. Designed to be challenging and provocative, the program allows students the opportunity to develop discernment and judgment, enabling them to find their own voices as designers who are accountable contributors to the built environment.

The offices of the graduate program and college administration are located at 224 Art and Architecture Building.
MASTER OF ARCHITECTURE
ARCHITECTURE MAJOR

The School of Architecture offers two tracks leading to the Master of Architecture degree. Track 1 is for students seeking the first-professional degree who already hold a bachelor’s degree or an advanced degree in another field. Track 2 is for students with an accredited first-professional degree who seek to develop an area of specialization. Contact the school for additional information.

Admission

In addition to meeting the Graduate Council’s minimum requirements, the following specific admission requirements to the Master of Architecture program must be met.

For Track 1 applicants, a bachelor’s degree with a 3.0 GPA from an accredited college or university is required. International applicants must have an equivalent four-year degree and 3.0 GPA. Candidates with a GPA less than 3.0 may be considered for conditional admission when evidence of exceptional promise is identified. Undergraduate work must include at least 12 semester hours of humanities, a basic understanding of physical principles, systems and analytical procedures and an understanding of mathematical principles and analytical procedures, as well as a general understanding of the use of computers. The school requires an essay and three letters of recommendation. Submission of a portfolio illustrating evidence of visual creativity and/or graphic capabilities is highly recommended. A personal on-site interview is desirable but not mandatory. For those applicants from accredited 4+2 architecture programs, a portfolio is required in addition to the above requirements.

For Track 2 applicants, a Bachelor of Architecture degree from an NAAB accredited program or foreign equivalent is required. Candidates with a GPA less than 3.0 may be considered for conditional admission when evidence of exceptional promise is identified. Submission of a portfolio, an essay, and three letters of recommendation are also required. A personal on-site interview is desirable but not mandatory.

The general portion of the Graduate Record Examination is required of all applicants. Applicants should take the GRE at least one semester in advance of application for admission.

Requirements

Track 1 requires a minimum of 48 semester hours of undergraduate preparation and 60 semester hours of graduate coursework, taking approximately three and a half years of full-time study. A minimum of 4 hours of architectural electives or approved electives from another discipline must be taken at the 500 level or above.

Track 2 requires a minimum of 30 semester hours of graduate coursework.

Both tracks require 6 hours of Thesis 500 with a public presentation and oral defense of the thesis. Retention in the program is contingent upon evidence of satisfactory progress toward the degree. Student’s progress will be reviewed each semester by the Graduate Program Head. Any questions regarding progress will be reviewed by the Graduate Program Advisory Committee.

For further information, contact the School of Architecture.
The University of Tennessee began as a liberal arts institution. 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 (now known as the College of Arts and Sciences) is one of the oldest established colleges in the university.

The College of Arts and Sciences 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.

The College of Arts and Sciences offers programs in twenty-seven academic disciplines leading to nine advanced degrees: Doctor of Audiology, Doctor of Philosophy, Master of Arts, Master of Fine Arts, Master of Mathematics, Master of Music, Master of Public Administration, Master of Science, Master of Science in Planning.

Facilities for research and service include the Center for Applied and Professional Ethics, the Center for Environmental Biotechnology, the Center for Psychoanalysis and the Humanities, the Center for Quaternary Studies of the Southeastern United States, the Center for the Study of War and Society, the Child Behavior Institute, the Forensic Anthropology Center, the Hearing and Speech Center, the Institute for Applied Microbiology, the Institute for Resonance Ionization Spectroscopy, the Joint Institute for Heavy Ion Research, the Psychological Clinic, the Science Alliance, and the Social Science Research Institute.
Prospective student’s written work (a class paper or research report). These materials should be sent directly to the Graduate Secretary, Department of Anthropology, South Stadium Hall 250, The University of Tennessee, Knoxville, Tennessee 37996-0720.

Graduate applications are considered once a year by the Graduate Committee. All application materials must be received in the department by January 15 for admission the following fall. Because of the structure of first-year studies, MA students should plan to begin their studies in the fall semester.

Requirements

The program leading to the MA is a general curriculum that allows for concentration after completion of a core course sequence. Formal requirements include the following.

- Selection of an MA advisor. This should be done as soon as possible in the student’s program but must be done no later than the end of the first semester in residence. The department graduate secretary must be informed in writing of each student’s advisor.
- A minimum of 30 hours in graduate courses. Twenty-four hours must be in coursework graded A-F. Coursework must include three core classes taken in the first year.
  a. 510 Method and Theory in Cultural Anthropology.
  b. 560 Theory in Archaeology.
  c. 590 Method and Theory in Biological Anthropology.
- Additional coursework should be selected in consultation with the student’s advisor and must include one additional course from two anthropology concentrations besides the student’s primary concentration. At least 20 hours of coursework must be at the 500 level or higher. Students concentrating in Mediterranean archaeology, in consultation with their advisor, should select their additional 18 hours from courses offered in the Anthropology, History, or Classics departments.
- During the first year, comprehensive graduate evaluation examinations are required of all MA students and are based on the content of the core courses. These examinations are given during regularly-scheduled final periods in each core class and are graded by all faculty within the appropriate sub discipline for each course. At the end of the first year, all MA students are evaluated by the entire faculty and will either be retained or dropped from the program based on their first year’s performance and scores from the department’s Graduate Evaluation Examination.
- All MA students must attend the graduate section of the visiting lecturer program. To insure compliance with this requirement, each student is required to register for 1 hour of Anthropology 550 in the fall semester of each year and fulfill all requirements for the course as defined by the instructor. Materials covered by visiting lecturers may appear on the Graduate Evaluation Examination.
- A graduate-level introductory statistics course, usually Statistics 537.
- In the second year of the program, students pursue their concentration area and undertake thesis research. Coursework will be determined through consultation with the student’s advisor and committee (composed of the advisor and at least one other member of the anthropology faculty along with other mutually-agreed upon members).
- Successful completion of the thesis and final oral examination. Normally, students will complete and defend their theses during the spring semester of their second year.
- Two copies of the thesis are required by the Office of Graduate Student Services. In addition, bound copies of the thesis are to be provided to the department and to all members of the student’s MA committee.

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<th>Adjunct Professors</th>
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<th>Post-Doctoral Research Associate</th>
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MAJOR

Anthropology

- Archaeology concentration
- Biological anthropology concentration
- Cultural anthropology concentration
- Mediterranean archaeology concentration
- Zooarchaeology concentration

Anthropology

- Archaeology concentration
- Biological anthropology concentration
- Cultural anthropology concentration
- Zooarchaeology concentration

The Department of Anthropology offers both the Master of Arts and Doctor of Philosophy with a major in anthropology and concentrations in archaeology, biological anthropology, cultural anthropology, and zooarchaeology. A concentration in Mediterranean archaeology is available on the master’s level. Additional information on the anthropology graduate program may be obtained from the departmental brochure (see the department’s Web site) or by contacting the department.

MASTER OF ARTS

ANTHROPOLOGY MAJOR

Admission

Students wishing to enter the Master of Arts program with a major in anthropology should have an undergraduate GPA of 3.5 in the major, 3.3 overall, and hold a bachelor’s degree from an accredited university with a major in anthropology. Applicants with a major in a related field (biology, sociology, geology, classics or geography) will be considered only if they have a formal minor in anthropology or its equivalent (at least five upper-division anthropology courses).

In cooperation with the Classics and History Departments, the Department of Anthropology is able to offer a concentration in Mediterranean archaeology. Students who apply in this area should have completed appropriate undergraduate courses in archaeology or anthropology. An anthropology minor is preferred.

All prospective MA students must make formal application to the University of Tennessee, Knoxville, Office of Graduate and International Admissions. Copies of the application form, transcripts, and GRE scores that are sent to Graduate and International Admissions should also be sent directly to the Department of Anthropology at the same time. In addition, the department requires a letter of intent from the applicant indicating career goals and reasons for selecting the University of Tennessee, Knoxville, and three letters of recommendation and one sample of the prospective student’s written work (a class paper or research report).
In addition to the requirements listed above, MA students have the option of completing a minor in statistics. The statistics minor requires 9 hours of coursework, normally Statistics 537 and 538 plus one additional course from an approved list.

**DOCTOR OF PHILOSOPHY**

**ANTHROPOLOGY MAJOR**

In addition to the Graduate Council requirements, requirements for the PhD with a major in anthropology, in the appropriate sequence of completion, are as follows.

**Admission**

Admission to the PhD program is contingent upon completion of all requirements prior to that level. Master’s thesis candidates at the University of Tennessee, Knoxville, who are conditionally accepted into the PhD program can enroll as doctoral students the semester following conferral of the MA. Students holding master’s degrees from other institutions must apply by January 15 for admission the following fall and must begin their studies in the fall semester.

Admission to the PhD program is based upon the applicant’s academic record and credentials, but also on fit between an individual’s interest and faculty areas of research. Applicants will not be admitted to the PhD program unless appropriate faculty members are available to chair and serve on the doctoral committee. Doctoral program applicants should communicate directly with the potential chairperson and two additional members of the anthropology faculty who will be asked to serve on the committee.

Applicants to the PhD program must meet the same academic standards as MA program applicants and furnish the same materials (see Admission under Master of Arts). Admission to the program requires either

- Acceptance of a master’s in anthropology.
- Acceptance of a master’s in another discipline with the provision that the student will follow the first-year program with entering MA students, i.e., complete the core courses (510, 560, 590) and pass the graduate evaluation examinations.

**Requirements**

**Doctoral Committee**

A doctoral committee is appointed following admission to the program. In consultation with this committee, the student defines the future program of studies. When the student and committee have agreed upon the specific fields of specialized competence over which the student will be examined, a brief delineation of the fields by the student, approved by the members of the committee, is presented to the department head and the student’s major professor. As early as possible, but no later than a full semester after admission to candidacy, the student shall formally present a written dissertation proposal to the department head and advisor.

**Residence and Coursework**

Every potential PhD candidate must complete two consecutive semesters of full-time residence prior to taking the doctoral comprehensive examination. The student must complete the minimum coursework requirements of the Graduate Council, including at least 9 hours of 500- or 600-level courses outside of anthropology, chosen in consultation with the doctoral committee, particularly the outside member who represents the cognate area. Outside coursework may be taken in a single discipline or be distributed across two or more disciplines as appropriate to the individual’s program of study.

**Statistics**

Demonstration of competence in statistics by completing Statistics 537 and 538 with a grade of B or better is required.

**Language**

Students must demonstrate 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 either

- Successful performance on a language examination administered by the appropriate language department. A student electing this alternative should consult with the advisor.
- Completion of the second semester of specialized reading courses for graduate students with a grade of B or better.

The department does not accept completion of the intermediate (200 level) sequence of a language as a formal option for fulfilling the language requirement.

**Doctoral Comprehensive Examination**

Students must successfully complete a written and oral comprehensive exam.

- **Comprehensive Written Examination** – When the PhD aspirant has completed all of the foregoing requirements and is judged by the committee to be prepared in the field(s) of concentration, the student will be required to take a comprehensive written examination. The exam will consist of three sections and be given by the student’s committee. All three sections must be taken within seven consecutive days.
- **Comprehensive Oral Examination** – This examination follows shortly after successful completion of the comprehensive written exam. The major professor acts as chairperson of the committee.

**Admission to Candidacy**

Upon successful completion of the comprehensive exam and with the formal approval of the Dean of Graduate Studies, the student is admitted to candidacy for the PhD degree. The formal dissertation prospectus must be filed no later than one full semester after advancement to candidacy.

**Dissertation Research**

This period of research and writing will be under the direct guidance of the candidate’s major professor. The major professor will act as chairperson of the candidate’s committee. The candidate must earn a minimum of 24 hours in Anthropology 600 and maintain continuous registration until the dissertation is accepted. The option of presenting publishable papers as a dissertation is not a formal option for the Anthropology Department.

**Defense of Dissertation Examination**

When the dissertation has been tentatively accepted by the committee, a final oral examination will be held. The committee conducts the exam, which is ordinarily held as a colloquium in which the candidate will expound on the nature and significance of his/her contribution to anthropological knowledge as set forth in the dissertation.
SCHOOL OF ART
http://web.utk.edu/~art
Paul Lee, Director
Suzanne Wright, Associate Director
Tom Riesing, Graduate Liaison

Professors
Brake, M., MFA ............................... Yale
Goldenstein, M.B., MFA ............................ Nebraska
Habel, D.M., PhD ............................. Michigan
Lee, B., MFA ................................. Yale
Lee, P., MFA ............................... Cranbrook
Leland, W.E., MFA .............................. Tennessee Lyons, B., MFA ................................. Arizona State
Magden, N., PhD ............................. Case Western Reserve
Riesing, T.J., MFA .............................. Nebraska
Staples, C., MFA .............................. Michigan State
Wilson, D., MFA ............................... Wisconsin
Yates, S.A., MFA ............................... North Carolina (Greensboro)

Associate Professors
Broden, S., M.FA ............................. New York State College of Ceramics at Alfred Dewey, W., PhD ................................. Indiana
Hiles, T.W., PhD ............................. Pennsylvania State Neff, A.L., PhD ............................... Pennsylvania
Jung, A., MFA ................................. Wisconsin
Lee, P., MFA ................................. Cranbrook
Magden, N., PhD ............................. Case Western Reserve
Neff, A.L., PhD ................................. Pennsylvania State
Riesing, T.J., MFA .............................. Nebraska
Shmerler, D., MFA .............................. Virginia Commonwealth
Sprecher, J.B., MFA ............................. Iowa

Assistant Professors
Boylan, A.L., PhD .............................. Rutgers
Brown, J., MFA ................................. Rhode Island School of Design
Lough, W., MFA ............................... Temple
Lowe, S., MGD ................................. North Carolina State
Martin, F., MFA .............................. Cranbrook
Shmerler, D., MFA .............................. Virginia Commonwealth

MAJOR DEGREE
Art MFA*

Art
- Ceramics concentration
- Drawing concentration
- Graphic design concentration
- Media arts concentration
- Painting concentration
- Printmaking concentration
- Sculpture concentration

* The Master of Fine Arts is the terminal degree in studio art.

MASTER OF FINE ARTS
ART MAJOR

Admission
To become a candidate, the applicant must be admitted by the Office of Graduate and International Admissions and approved by the School of Art. In addition to the minimum admission requirements, the School of Art specifically requires the following:
- A detailed letter of intent including statement requesting assistantship, if desired.
- Three letters of recommendation from former professors or professionals in the field.
- An undergraduate major in art or evidence of equivalent proficiency.
- A portfolio to be evaluated by the faculty.

Further information is available by writing to the School of Art.

Requirements
A minimum of 60 hours to include the following.
- Successful completion of 20 hours of studio 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.
- A minimum of 9 hours of graduate-level academic (non-studio) courses of which at least 6 hours are to be in art history.
- 11 hours of electives which may consist of any combination of courses offered by the university for graduate credit.
- Project in Lieu of Thesis (20 hours). A third year of semi-independent study. Student must have completed all other coursework prior to registration.

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 School of Art as a minimum enrollment of 6 hours per semester and use of School of Art facilities so that students are available for discussion and criticism.

The candidate’s committee will consist of a minimum of three members and a maximum of six members and will be appointed prior to registration for 599. The committee must consist of one faculty member from the candidate’s concentration area (designated as chairperson) and a faculty member from outside the concentration area. The inclusion of an art history faculty member on each committee is encouraged.

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

Academic Standards
- First-year evaluation. At the end of the first two semesters in residence, the student must present a portfolio for evaluation by the faculty and receive permission to continue in the program.
- 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.
- If, in a review by the student’s major area faculty, the student’s progress is deemed insufficient, the faculty may recommend a work period without advancement toward the degree, probation with specific goals set for a specific time, or dismissal.

Art History Minor
A graduate minor in art history may be arranged during the student’s first semester of study with the consent of the student’s area instructors and the art history faculty. Students must complete a minimum of 12 hours in art history that is agreed upon by the art history faculty after review of previous undergraduate coursework. A reading knowledge of French, German, or Italian is a prerequisite, unless waived by the art history faculty. Graduate Council policy stipulates that a member from the minor unit must serve on the thesis committee.
DEPARTMENT OF AUDIOLOGY
AND SPEECH PATHOLOGY

http://web.utk.edu/~aspweb/
Ilsa Schwarz, Head

Professor
Schwarz, I., PhD ...................................................... Oregon

Associate Professors
Erickson, M., PhD ...................................................... Southern California
Hedrick, M., PhD ....................................................... Vanderbilt
Swanson, L., PhD ....................................................... Purdue
Thelin, J., PhD ............................................................ Iowa

Assistant Professors
Filipson, P., PhD .......................................................... Wisconsin
Harkrider, A., PhD ......................................................... Texas
Horton-Ikard, R., PhD ..................................................... Wisconsin
Karow, C., PhD ............................................................. Texas
Munoz, M., PhD ............................................................. Texas
Plyer, P., PhD .............................................................. Tennessee
Saltuklaroglu, T., PhD ..................................................... East Carolina
Von Hapsburg, D., PhD .................................................. Texas

Instructor
Singletary, T., MS ............................................................ Colorado State

Clinical Director
Michael, A., PhD .......................................................... Vanderbilt

Clinical Faculty
Arp, D., MA ................................................................. Tennessee
Barnes, V., MA ............................................................. Tennessee
Beeler, J., MA .............................................................. Tennessee
Buehler, V., MA ............................................................. Tennessee
Campbell, J., AuD ........................................................... Arizona School of Health Sciences
Cutler, M., PhD ............................................................. Georgia
Davidson, M., MA ............................................................ Tennessee
DeGennaro, A., MA .......................................................... Case Western
Donels, E., MA ............................................................. Tennessee
Gehrlein, B., MA ............................................................ Washington (St. Louis)
Gibson, K., MA ............................................................. Arizona State
Humphrey, E., AuD .......................................................... Tennessee
Hume, S., PhD .............................................................. Tennessee
Jenkins, K., MA ............................................................. Tennessee
Mintz, B., MA ............................................................... Penn State
Noss, E., MA ................................................................. Tennessee
Pemberton, S., MA .......................................................... Tennessee
Plyer, E., AuD ................................................................. Arizona School of Health Sciences
Powers, H., MA ............................................................. Tennessee
Schay, N., AuD .............................................................. Tennessee
Searfoss, M., MA ............................................................ Tennessee
Sheridan, C., MA ............................................................ Tennessee
Thomason, T., MA .......................................................... Tennessee
Valentine, D., PhD .......................................................... Tennessee
Vantrease, C., MA .......................................................... Tennessee
Vaughn, T., MS ............................................................... Eastern Kentucky
Webb, P., MEd ............................................................. Florida
Yeager, K., AuD .............................................................. Tennessee

MAJORS DEGREES

Audiology MA
Aural habilitation concentration

Audiology AuD

Speech Pathology MA
Aural habilitation concentration

Speech and Hearing Science PhD
Audiology concentration
Hearing science concentration
Speech and language pathology concentration
Speech-language science concentration

MASTER OF ARTS

AUDIOLOGY MAJOR

Graduate study leading to the MA with a major in audiology is available only to those students accepted to and enrolled in the AuD program or the PhD program in speech and hearing science. This degree is awarded to students who desire a master's degree as part of their progress toward a doctorate.

A student must be in good standing within the AuD or PhD program and must have completed a minimum of 58 hours of academic coursework at the 500 or 600 levels. Students must pass a qualifying examination or equivalent in their doctoral program and must earn a B or better in all courses that are to count toward the 58 hour total.

DOCTOR OF AUDIOLOGY

AUDIOLOGY MAJOR

The Doctor of Audiology (AuD) program is designed to prepare individuals for professional careers in audiology. The degree program is clinically oriented, with primary emphasis on processes involved in hearing, vestibular function, and communication. The program is designed to meet the entry-level requirements for the practice of audiology established by the Council on Academic Accreditation of the American Speech-Language-Hearing Association. Students will be expected to demonstrate competencies in the following areas.

- Prerequisite knowledge and skills for the practice of audiology.
- Foundations of practice for audiology.
- Prevention and identification of auditory, vestibular, and related communication disorders.
- Evaluation of auditory, vestibular, and related communication disorders.
- Treatment of auditory, vestibular, and related communication disorders.

The program will normally consist of four calendar years of study beyond the baccalaureate degree with the first three years being devoted primarily to formal coursework, and the last year to a full-time externship in the practice of clinical audiology.

Requirements

A minimum of 112 hours, including a minimum of
- 67 hours of academic coursework at the 500- and 600-levels.
- 3 hours of directed research in audiology, vestibular, or related communication disorders.
- 24 hours of clinical practice in audiology.
- 18 hours of externship in audiology.
- A qualifying examination.
- A comprehensive examination.

AURAL HABILITATION CONCENTRATION

(see section below)

MASTER OF ARTS

SPEECH PATHOLOGY MAJOR

Admission to this graduate program is competitive. This graduate program is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

Requirements

The master's program in speech pathology is a two year program and consists of the completion of 42 hours of academic content courses (including thesis) plus practicum.

The required courses are 506, 511, 518, 526, 527, 539 or 541, 540, 561, 582, and at least one seminar from 522, 523, 531, 626, or 661. At least 12 hours of elective courses with no more than 6 hours below the 500 level. Undergraduate coursework may not be substituted for seminar courses. Students who have not completed an undergraduate course in speech sound disor-
ders, voice disorders, and fluency disorders must complete one graduate course in each of these areas.

Students majoring in speech pathology may elect either the thesis or non-thesis option. The master’s program in speech pathology with thesis includes 6 hours of 500 credit in the preparation of an acceptable thesis representing original independent work, and a final oral examination. Students in the non-thesis option must pass a final written examination.

AURAL HABILITATION CONCENTRATION

Graduate students in both audiology and speech pathology may elect to pursue a concentration in the area of aural habilitation. Admission to the program is competitive and applications are available on the departmental Web site. The aural habilitation concentration requires the following:

• Three semesters of clinical practicum in treatment of children who have hearing impairments totaling a minimum of 130 clock hours.
• Completion of 6 hours of graduate coursework in language, audiology and/or aural habilitation in elective requirements for the MA or AuD.

Specific requirements are outlined in the MA and AuD graduate handbooks as well as on the departmental Web site.

DOCTOR OF PHILOSOPHY

SPHERE AND HEARING SCIENCE MAJOR

The PhD program with a major in speech and hearing science seeks to develop individuals for professional careers in a variety of positions including research and college teaching in the concentration areas of audiology, hearing science, speech and language pathology, or speech-language science. The degree program is research oriented with primary emphasis on processes involved in normal, or disordered speech, language and hearing. Students will be expected to demonstrate their knowledge in areas related to the concentrated field of study. These areas include

• Basic speech, hearing, or language processes.
• Basic speech, hearing, or language disorders or differences.
• Related disciplines providing insight into human communication processes.
• Technical skills in instrumentation and experimental design which enable the student to investigate problems pertaining to speech and hearing processes.

Requirements

The doctoral program requires successful completion of coursework, research projects, a comprehensive examination and dissertation. The total program includes a minimum of 60 hours with a minimum of

• 6 hours in a research tool.
• 6 hours in a cognate field outside the department.
• 24 hours in the major area of study (6 hours must be at the 600 level within the department). These will include
  a. A minimum of 6 hours on the topic of major interest.
  b. A minimum of 6 hours earned through participation in two different research projects.
  c. 3 hours of Audiology and Speech Pathology 611 (Experimental Design) course (or equivalent).
  d. 3 hours of Audiology and Speech Pathology 655 supervised teaching experience.
• 24 hours in dissertation, course 600 enrollment.

To complete the doctoral program, students must prepare a dissertation and defend it successfully. Students must pass a comprehensive examination with both a written and an oral component before being advanced to candidacy. The doctoral program should be developed in the first year of study and is the responsibility of the student and the doctoral committee.

DEPARTMENT OF BIOCHEMISTRY AND CELLULAR AND MOLECULAR BIOLOGY

http://web.bio.utk.edu/bcmb/
Bruce D. McKee, Head and Graduate Liaison

Professors

Ganguly, R., PhD ........................................... Nebraska
Hickok, L., PhD ........................................... Massachusetts
Howell, E., PhD ........................................... Lehigh
Joy, D. (Distinguished Scientist), DPhil ........................................... Oxford (UK)
Koontz, J., PhD ........................................... Kentucky
Mckee, B., PhD ........................................... Michigan State
Mullin, B., PhD ........................................... North Carolina State
Peterson, C., PhD ........................................... Louisiana State
Roberts, D., PhD ........................................... California (Davis)
Serpersu, E., PhD ........................................... Hacettepe

Associate Professors

Bruce, B., PhD ........................................... California (Berkeley)
Dealwis, C., PhD ........................................... London
Hall, J., PhD ........................................... Illinois
Prosser, R., PhD ........................................... Illinois

Assistant Professors

Fernandez, E., PhD ........................................... Loyola
Guo, H., PhD ........................................... Harvard
Jain, N., PhD ........................................... Brandeis
Klitzero, A., PhD ........................................... Nagasaki (Japan)
Labrador, M., PhD ........................................... Madrid (Spain)
Nebenfuhr, A., PhD ........................................... Oregon State
Park, J., PhD ........................................... Texas
Venkatachalam, S., PhD ........................................... Ohio State
von Anm, A., PhD ........................................... East Anglia (UK)

Adjunct and Research Faculty

Allison, D., MS ........................................... Tennessee
Gorgashaiu, S., PhD ........................................... Manchester
Hartman, F., PhD ........................................... Tennessee
Kliebig, M., PhD ........................................... Tennessee
Liu, Yie, PhD ........................................... Sweden
Mazur, P., PhD ........................................... Harvard
O'Neill, H., PhD ........................................... Dublin (Ireland)
Rinchik, G., PhD ........................................... Duke
Wetzel, R., PhD ........................................... California (Berkeley)

MAJOR

Biochemistry and Cellular and Molecular Biology MS, PhD

Admission

Applicants for graduate study are expected to have a background equivalent to that required of undergraduate majors in this department. This includes a knowledge of the basic principles of biochemistry, cell biology, genetics and physiology. Requirements for admission are

• One year of general biology or the equivalent.
• A minimum of 8 hours of approved biology courses beyond the introductory level and including the subject areas of genetics, cell biology and physiology.
• Two years of chemistry including one year of general chemistry and one year of introductory organic chemistry with laboratory.
• At least one semester of biochemistry.
• One year of calculus.
• One year of physics.
• Graduate Record Examination scores.
• A minimum grade point average of 3.0 out of 4.0.

Otherwise superior students, deficient in one or more of the above requirements, may be admitted at the discretion of the department's Graduate Recruiting Committee.
MASTERS OF SCIENCE
BIOCHEMISTRY AND CELLULAR AND MOLECULAR BIOLOGY MAJOR

Requirements
- Biochemistry and Cellular and Molecular Biology 511, 512, and 515, and 6 hours of 516.
- Completion of course requirements as determined by the candidate's faculty committee.
- Achievement of a 3.0 or better GPA in all courses taken for graduate credit.
- Participation in 601 and 603 during the entire period of residence. Participation in at least one journal club chosen from among 605-608 for three semesters.
- 6 hours of master's research and a thesis.
- A final examination that covers both the thesis endeavor and the subject matter of the course requirements.

DOCTOR OF PHILOSOPHY
BIOCHEMISTRY AND CELLULAR AND MOLECULAR BIOLOGY MAJOR

Requirements
- Biochemistry and Cellular and Molecular Biology 511, 512, and 515, and 6 hours of 516.
- At least two additional approved graduate courses in the life sciences or chemistry, or physics, or other physical science to be determined upon consultation with the mentor and the dissertation committee. No survey courses will be accepted.
- At least 6 hours of topics offered in 615 or its equivalent.
- Participation in 601 and 603 during the entire period of residence. Participation in at least one journal club chosen from among 605-608 for 6 semesters.
- Comprehensive examination, taken before the end of the third year of study.
- A dissertation reporting the results of original and significant research carried out during the term of candidacy.
- A final oral examination which will be concerned primarily with the student's dissertation.

Petitioning for Master's Degree

Students who have passed the comprehensive examination in the PhD program and have completed at least 30 hours of approved coursework for graduate credit, at least two-thirds of which must be at or above the 500 level, may petition the department for award of a master's degree. The additional requirements for such a degree are
- Preparation of a research manuscript suitable for submission for publication in a major scientific journal and oral defense of that manuscript before an examining committee of three faculty members appointed by the head of the department, at least two of whom shall be members of the department.
- Publication of at least one full-length paper in a major scientific journal as senior author.

DEPARTMENT OF CHEMISTRY
http://www.chem.utk.edu
Craig E. Barnes, Interim Head
Charles S. Feigerle, Graduate Liaison

Professors
- Adcock, J.L., PhD .................................................. Texas
- Baker, D.C., PhD .................................................. Ohio State
- Barnes, C.E., PhD .................................................. Stanford
- Bartmess, J.E., PhD .................................................. Northwestern
- Compton, R.N., PhD .................................................. Tennessee
- Cook, K.D., PhD .................................................. Wisconsin
- Dadmun, M.D., PhD .................................................. Massachusetts
- Feigerle, C.S., PhD .................................................. Colorado
- Guiochon, G.A. (Distinguished Scientist, Science Alliance Center of Excellence), PhD .................................................. Université de Paris (France)
- Kabalka G.W. (Robert H. Cole Professor, Alumni Distinguished Service Professor), PhD .................................................. Purdue
- Kovac, J.D., PhD .................................................. Yale
- Laese, J.Z., PhD .................................................. Wesleyan
- Magid, L.J., PhD .................................................. Tennessee
- Magid, R.M., PhD .................................................. Yale
- Mays, J.W. (Distinguished Scientist, Science Alliance Center of Excellence), PhD .................................................. Akron
- Pagni, R.M., PhD .................................................. Wisconsin
- Schweitzer, G.K. (Alumni Distinguished Service Professor), PhD .................................................. Illinois
- Sepaniak, M.J., PhD .................................................. Iowa State
- Williams, T.F. (Alumni Distinguished Service Professor), PhD .................................................. London (UK)
- Woods, III, C., PhD .................................................. North Carolina State
- Xue, Z., PhD .................................................. UCLA

Associate Professors
- Hinde, R.J., PhD .................................................. Chicago
- Musfeldt, J.L., PhD .................................................. Florida
- Schell, F.M., PhD .................................................. Indiana
- Turner, J.E.C., PhD .................................................. Oxford (UK)
- Vogt, F., PhD .................................................. Karlsruhe (Germany)
- Zhang, X., PhD .................................................. Pennsylvania
- Zhao, B., PhD .................................................. Akron

MAJOR DEGREES

Chemistry
- MS
  Analytical chemistry concentration
  Environmental chemistry concentration
  Inorganic chemistry concentration
  Organic chemistry concentration
  Physical chemistry concentration
  Polymer chemistry concentration
- PhD
  Analytical chemistry concentration
  Chemical physics concentration (with Physics Department)
  Environmental chemistry concentration
  Inorganic chemistry concentration
  Organic chemistry concentration
  Physical chemistry concentration
  Polymer chemistry concentration
  Theoretical chemistry concentration

The faculty of the Department of Chemistry at the University of Tennessee, Knoxville, seek to prepare their students to join the international ranks of professional chemists in fundamental areas of chemistry as well as cross-disciplinary sciences in which chemical expertise plays a critical role in the development of new knowledge and technologies. Students planning to major in chemistry for the master's or doctoral degree will ordinarily have attained a satisfactory record in the traditional areas of chemistry. The department, however, recognizes that modern chemistry transcends traditional disciplinary divisions. Therefore, it encourages students with undergraduate majors in chemical engineering, the biological sciences, physics, mathematics, computer science, or other fields to apply for admission to our program.
Admission
Admission to the graduate program and a student’s course of study in graduate school are decided on a case-by-case basis, taking into consideration an applicant’s undergraduate record (traditionally including one year, each, of general, analytical, organic, and physical chemistry, and one-half year of inorganic chemistry), performance on national graduate school tests, and departmental diagnostic exams. All applicants are required to take the general Graduate Record Examination.

MASTER OF SCIENCE
CHEMISTRY MAJOR
CONCENTRATIONS
The department offers concentrations in six areas for the MS – analytical chemistry, environmental chemistry, inorganic chemistry, organic chemistry, physical chemistry, and polymer chemistry.

Requirements
The requirements for the MS with a major in chemistry consist of the satisfactory completion of the following requirements.

- Research and a thesis to give 6 to 12 hours of graduate credit in Chemistry 500.
- Participation in seminar (Chemistry 501) during the entire period of graduate study, including the presentation of at least one seminar. (No more than 2 hours may be applied to the course requirements.)
- Prescribed courses based on performance on diagnostic examinations.
- Sufficient graduate coursework in chemistry (at the 400 level or above) and/or a related field to make an overall total of 30 hours, including one of the following sequences – 510-511-512; three of 530-531-532-533; 550-551-552-553; 570-572-573 and 590-594-595. At least 14 hours of this graduate coursework must be at the 500 level or above.
- A final oral examination.

DOCTOR OF PHILOSOPHY
CHEMISTRY MAJOR
CONCENTRATIONS
The department offers concentrations in eight areas for the PhD with a major in chemistry – analytical chemistry, chemical physics (in cooperation with the Department of Physics), environmental chemistry, inorganic chemistry, organic chemistry, physical chemistry, polymer chemistry, and theoretical chemistry.

Requirements
The requirements for the PhD in chemistry (except for the chemical physics concentration) consist of the satisfactory completion of the following requirements.

- Research and a dissertation to give at least 24 hours of graduate credit in Chemistry 600. Registration must be continuous from the beginning of research.
- Participation in seminar (Chemistry 501) during the entire period of graduate study, including the presentation of at least one seminar.
- Prescribed courses based on performance on diagnostic examinations.
- Completion of the comprehensive examination series and defense of an original research proposal to give 2 hours of credit in Chemistry 601.
- 18 additional hours in courses at the 500 level or above including at least one course above 601 and one of the following sequences – 510-511-512; 530-531-532-533; 550-551-552-553-554; 570-571-572-573; and 590-594-595.
- A final oral examination.

The PhD program with a concentration in chemical physics is conducted jointly with the Department of Physics. Requirements depend on the choice of the major department. Chemistry departmental requirements include passing the above degree requirements in chemistry with concentration in physical chemistry plus 6 additional hours in physics at the 500 level or above. Three of the additional physics hours can be used to satisfy the 18 hours requirement listed above.

DEPARTMENT OF CLASSICS
http://web.utk.edu/~classics/
David W. Tandy, Head

Professors
Craig, C.P. (Lindsay Young Professor), PhD .................. North Carolina
Martin, S.D. (Associate Vice Chancellor), PhD ........... .Michigan
Tandy, D.W. (Distinguished Professor of Humanities), PhD  .... Yale

Associate Professor
Sutherland, E.H., PhD .......................... California (Berkeley)

Assistant Professors
Graninger, C.D., PhD .............................. Cornell
Sklenar, R.J., PhD ................................. Michigan
Van Vleet, Moorel, A., PhD .......................... Bryn Mawr

Research Professors
Gesell, G.C., PhD ................................. North Carolina
Langdon, M.K., PhD .............................. Pennsylvania

Adjunct Faculty
Dessel, J.P., PhD ................................. Arizona
Dzon, M., PhD ................................. Toronto (Canada)
Fitzgerald, J.L., PhD .............................. Chicago
Heffernan, T.J., PhD .............................. Cambridge
Jones, D.W., PhD ................................. Chicago
Kulikowski, M., PhD .............................. Toronto (Canada)
Shepardson, C., PhD .............................. Duke
Stiebert, J., PhD ................................. Glasgow (UK)

DEPARTMENT OF COMPUTER SCIENCE
http://www.cs.utk.edu/
Michael W. Berry, Interim Head
David W. Straight, Graduate Liaison

Professors
Berry, M.W., PhD ................................. Illinois
Dongarra, J.J., PhD ................................. New Mexico
Gregor, J., PhD ................................. Aalborg (Denmark)
Langston, M.A., PhD .............................. Texas A&M
Poon, J.H., PhD ................................. Georgia Tech
Thomason, M.G., PhD ......................... Duke
Vander Zanden, B.T., PhD ...................... Cornell
Ward, R.C., PhD ................................. Virginia

Associate Professors
Beck, M., PhD ................................. Cornell
MacLennan, B.J., PhD ........................... Purdue
Parker, L.E., PhD ................................. Massachusetts Institute of Technology
Plank, J.S., PhD ................................. Princeton
Vose, M.D., PhD ................................. Texas

Assistant Professors
Huang, J., PhD ................................. Ohio State
Straight, D.W., PhD ............................... Texas

Lecturer
Mayo, J.W., MS ................................. Tennessee

MAJOR
Computer Science

DEGREES
MS, PhD
MASTER OF SCIENCE
COMPUTER SCIENCE MAJOR

Admission
Two semesters of calculus plus two additional semesters of college mathematics (e.g., linear algebra, differential equations, probability) and a course in formal languages as well as in systems programming are required for admission.

Requirements
For the master's degree, 30 hours of graduate credit are required, 24 of which must be 500 level or above. Computer Science 530, 560 and 580 or 581 are required for the degree. Graduate courses taken outside the department are sometimes allowed but must be approved by the Graduate Committee before enrollment.

Thesis Option
The student must reach agreement on a thesis topic with a faculty advisor and must take 6 hours of 500 Thesis. Six hours of 500 Thesis may count in the 24-hour requirement at the 500 level or above.

Non-Thesis Option
The student must take coursework in an area to prepare for the non-thesis master's examination. The student's advisor must verify that an acceptable set of courses has been taken before the student may schedule the examination. Information concerning the examination is available in the departmental office.

Problems in Lieu of Thesis Option
The student must reach agreement on the problem topic with a faculty advisor and pass an oral exam on the problems before a committee of three or more faculty members, of whom at least two must be computer science faculty.

DOCTOR OF PHILOSOPHY
COMPUTER SCIENCE MAJOR

Admission
A student seeking admission to the PhD program is expected to meet the following requirements.

• The student should have three letters of recommendation sent directly to the department head from individuals capable of assessing the student's potential for advanced work in computer science (for example, college teachers or employers for whom the student has worked after earning a bachelor's degree). The department reserves the right to contact these individuals or other knowledgeable people if additional information is deemed necessary or desirable.

• The student is expected to have taken the GRE verbal and quantitative general test within the past three years and to have these scores sent to the Office of Graduate and International Admissions.

• The student should satisfy the same background requirements as for the master's program. See the departmental brochure for details.

Requirements
Original research reported in a dissertation of high quality is emphasized. The minimum hour requirements are 24 hours of course 600 Doctoral Research and Dissertation and 24 hours of graduate courses beyond the equivalent of a master's degree (i.e., beyond 30 graduate hours) graded A-F. Computer Science 530, 560 and 580 or 581 are required for the degree. At least 6 hours of 600-level graded courses must be taken in computer science at the University of Tennessee, Knoxville. The student's advisor and committee will establish the specific course requirements. The comprehensive examination consists of a departmental written examination and a subsequent oral examination conducted by the student's committee.

Computer Science Minor
The graduate minor consists of any two of the four core courses (530, 560, 580, 581) plus an additional 3 hours of graded computer science graduate-level courses at or above the 400 level.

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

http://geoweb.gg.utk.edu/
Claudia I. Mora, Head
Jeffrey E. Moersch, Graduate Liaison

Professors
Broadhead, T.W., PhD ........................................ Iowa
Dunne, W.M. (Associate Dean), PhD ................................ Bristol
Hatcher, R.T. (UT Knoxville/ORNL Distinguished Scientist), PhD .................................. Tennessee
Labotka, T.C., PhD ............................................ California Institute of Technology
McKay, L.D., PhD ............................................ Waterloo
Mckinney, M.L., PhD .......................................... Yale
McSween, H.Y. (Distinguished Professor of Science), PhD ............................................... Harvard
Misra, K.C., PhD ............................................. Western Ontario (Canada)
Mora, C.I. (Carden Professor), PhD ........................................ Wiseconsin
Taylor, L.A. (Distinguished Professor of Science), PhD .................................................... Lehigh

Associate Professors
Mora, C.I. (Carden Professor), PhD ........................................ Wisconsin
Mora, C.I. (Carden Professor), PhD ........................................ Texas

Assistant Professors
Baker, G.S., PhD ............................................. Kansas
Fedo, C.M., PhD .............................................. Virginia Tech
Kah, L.C., PhD ................................................ Harvard
Moersch, J.E., PhD ............................................ Cornell

Lecturer
Sumrall, C.D., PhD ............................................. Texas

MAJOR DEGREES
Geology
MAJOR MS, PhD

The Department of Earth and Planetary Sciences offers both the Master of Science and Doctor of Philosophy with a major in geology. Persons interested in these programs should contact the Director of Graduate Admissions in the department.

Admission
For admission, an applicant must provide transcripts of previous university work, two rating forms or letters of recommendation, and GRE scores (general). Students are not normally admitted under non-degree status.

Prerequisite for both degrees is a bachelor’s degree, including coursework in mineralogy, optical mineralogy, petrology, stratigraphy, paleontology, structural geology, and field geology. One year of coursework in calculus and chemistry and one year of coursework in biology, physics, or statistics are also required. Applicants lacking any of these may be admitted, but the deficiencies must be removed within the first year without graduate credit. Substitutions may also be allowed.
DOCTOR OF PHILOSOPHY

GEOLOGY MAJOR

Requirements

The department offers the thesis option in the master's program. Graduation requires successful oral defense of a written thesis and a minimum 3.0 GPA in all graduate coursework.

Course requirements are a minimum of 30 hours, including

- 6 hours of Thesis 500.
- Registration in 595 during the first two years in residence. Two hours may be counted toward the 30-hour minimum. This requirement may be waived in unusual circumstances.
- 16 hours of geology courses, with at least 14 hours at the 500 or 600 level, including at least one course from any three of the following five groups.
  1. 410, 460, 475, 480, 530, 563, 565, 568.
  2. 450, 545, 546, 556, 557.
  3. 470, 570, 572, 575, 576.
  5. Any 400- or 500-level courses with graduate credit from related departments (allied sciences, mathematics, and engineering), selected with approval of the advisor.
- 8 hours of additional graduate coursework.

DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY

http://eeb.bio.utk.edu/

Christine R.B. Boake, Head
Arthur C. Echtermacht, Associate Head
Karen Hughes, Graduate Liaison

Professors

Boake, C.R.B., PhD ................................................. Cornell
Burghardt, G.M., PhD .............................................. Chicago
Echtermacht, A.C., PhD .............................................. Kansas
Etner, D.A., PhD ..................................................... Minnesota
Gavrilets, S., PhD ............................................... Moscow State
Greenberg, N.B., PhD ............................................. Rutgers
Gross, L.J., PhD ..................................................... Cornell
Harris, III, W.R., PhD .............................................. Tennessee
Hallam, T.G., PhD .................................................. Missouri
Hughes, K., PhD ..................................................... Utah
McCracken, G., PhD ................................................ Cornell
Petersen, R. (Distinguished Professor), PhD .................. Columbia
Riechert, S.E. (Distinguished Service Professor), PhD .... Wisconsin
Sayler, G.S., PhD ...................................................... Idaho
Schilling, E., PhD ..................................................... Indiana
Schultz, E., PhD ..................................................... Indiana
Simberloff, D. (Gore Hunger Chair of Excellence), PhD .. Harvard

Associate Professors

Drake, J.A., PhD ...................................................... Purdue
Small, R., PhD ......................................................... Iowa State
Smith, D., PhD ......................................................... Tennessee
Weltzin, J., PhD ...................................................... Arizona
Wofford, B.E. (Curator of Herbarium), PhD .................. Tennessee

Assistant Professors

Butler, M., PhD ...................................................... Washington (St. Louis)
Fitzpatrick, B.M., PhD ............................................ Davis
Fordyce, J.A., PhD .................................................. Davis
Gilchrist, M.A., PhD ................................................ Duke
Near, T.J., PhD ...................................................... Illinois
Sanders, N.J., PhD ................................................... Stanford
Williams, J., PhD .................................................... Georgia

Research Professors

Cooper, L.W., PhD .................................................. Alaska
Grebmeier, J.M., PhD .............................................. Alaska

Research Assistant Professor

Classen, A.T., PhD .................................................. Northern Arizona

Shared faculty are drawn from other university departments, the Oak Ridge National Laboratory, the United States Geological Survey, and the Tennessee Valley Authority.

MAJOR DEGREES

Ecology and Evolutionary Biology
Behavior concentration
Ecology concentration (including mathematical ecology)
Evolutionary biology concentration

Admission

Applications are accepted on a rolling basis. The deadline for receipt of all application materials is 6 January for those applicants wishing to enroll in the fall or spring semesters. Applications incomplete at that date, or received after that date, will not be considered. Applicants are expected to have an academic background consistent with a bachelor's degree in one of the life sciences. They are expected to have completed a minimum of one year of general biology, two years of chemistry including one year of general chemistry, one year of physics, and one year of college-level calculus. Occasionally, applicants who are highly qualified otherwise but lack one of these courses or course sequences will be admitted with the expectation that the deficiency will be made up within the first year of graduate study. Applicants are required to submit scores from the general Graduate Record Examination (GRE) and successful applicants will usually have a composite score on the verbal, mathematical and analytical sections of the GRE of at least 1580. Submission of scores on ap-
Appropriate (e.g., biology, mathematics) advanced GRE examinations is recommended but not required. Applicants are also expected to have an overall grade point average of at least 3.0, and 3.0 or above for all science and mathematics courses, on a 4.0 scale (successful applicants will usually have grade-point averages well above these minima).

Application must be made to both the Office of Graduate and International Admissions and the department. The departmental application requires three letters of reference from persons capable of assessing the applicant’s suitability for graduate study in biology and a statement of professional goals and reasons for applying to this program. Applicants for the doctoral degree are expected to have made prior contact with potential research advisors in the department’s graduate program and this approach is recommended for applicants for the master’s degree program as well. Inquiries should be directed to the Chair, Graduate Committee, Department of Ecology and Evolutionary Biology, The University of Tennessee, Knoxville, Tennessee 37996-1810.

**MASTER OF SCIENCE**

**ECOLOGY AND EVOLUTIONARY BIOLOGY MAJOR**

**Requirements**

In addition to general requirements of the Graduate Council, aspirants for the Master of Science are expected to:

- Take a prescriptive diagnostic examination during the first semester in residence which covers major concepts in ecology and evolutionary biology. The examination may be taken twice and must be passed before the student is admitted to candidacy.
- Complete course requirements as determined by the department and the student’s faculty thesis research committee.
- Satisfactorily complete and defend a research thesis.

**DOCTOR OF PHILOSOPHY**

**ECOLOGY AND EVOLUTIONARY BIOLOGY MAJOR**

**Requirements**

In addition to general requirements of the Graduate Council, aspirants for the Doctor of Philosophy degree are expected to:

- Take a prescriptive diagnostic examination covering major concepts in ecology and evolutionary biology. The examination may be taken twice and must be passed before the student is admitted to candidacy.
- Complete course requirements as determined by the department and the student’s faculty dissertation research committee.
- Pass a written and oral comprehensive examination designed to test for adequate knowledge in those areas essential to the student’s research program.
- Satisfactorily complete and defend a dissertation.

The department does not require a reading knowledge of a foreign language, but this may be imposed by the student’s faculty dissertation research committee. If so, the student has the option of demonstrating reading knowledge of the prescribed language by either (a) passing the official reading examination given by the language department or (b) earning a grade of at least a B in the second semester of a special language reading course for graduate students.

**Environmental Policy Minor**

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

**DEPARTMENT OF ENGLISH**

[Link to website]
MAJOR DEGREES

MA English Writing concentration

PhD English

The Department of English offers the Master of Arts and the Doctor of Philosophy degrees with a major in English. Thesis and non-thesis options are available for the MA, as well as a special writing concentration in writing. The department also offers a creative writing dissertation option in the doctoral program.

Detailed information about the master’s and doctoral programs and individual graduate courses may be obtained by writing the Director of Graduate Studies in English, 306 McClung Tower. A prospective student may contact the department for application forms and procedures or may download them from the departmental graduate Web site at http://www.utk.edu/~english/graduate.php. For additional information, please visit the graduate Web site through the College of Arts and Sciences home page at www.artsci.utk.edu.

The Department of English does not accept students in non-degree or provisional status. A student who wishes to enter the department must apply in degree-seeking status for his/her application to receive consideration for admission to any graduate program in English.

MASTER OF ARTS

ENGLISH MAJOR

Requirements

A minimum of 24 hours in English beyond the BA to include 6 hours at the 600 level; 12 additional hours at the 500-600 level (only 3 hours of 593 Independent Study may be applied toward the MA); and 6 hours for graduate credit at any level, including the 400-level. In this coursework, students must maintain at least a 3.0 GPA.

Thesis Option

Written under the direction of a faculty member of the department and approved by a committee of two other faculty members. Six hours of credit will be given.

Non-Thesis Option

Six hours of additional courses at the 500-600 level, making a total of 30 hours of required coursework.

Language Requirement

Evidence of proficiency in one foreign language, to be fulfilled in one of the following ways:

- Completion of the second year of a language at college level with a grade of C or better.
- Completion of French 302 or German 332 at the University of Tennessee, Knoxville, with a grade of B or better.
- Passing of the regular PhD foreign language examination as currently administered at the University of Tennessee, Knoxville.

Final Examination

A candidate presenting a thesis must pass a 1-hour oral examination; a candidate presenting a creative project must pass a ninety-minute oral examination. The examination consists of a short thesis defense, but chiefly of questions covering the general history of English and American literature, not merely the coursework taken. A reading list of primary works designed to help the student prepare for these questions is available in the office of the Director of Graduate Studies in English.

A non-thesis student must pass a written examination, followed by a 1-hour oral examination, both consisting of the same sort of questions as the examination taken by the thesis student.

Residence Requirement

There is no residence requirement for the MA, but students should attempt to pursue a full-time program whenever possible.

WRITING CONCENTRATION

The master’s program with writing concentration is intended for those students who plan to do freelance or creative writing, specialize in teaching writing courses at the college level, work as professional editors or writers in business or industry, or pursue doctoral studies.

The requirements for the writing concentration are the same as those for the thesis option above with the following exceptions.

Coursework

Writing students may substitute two 400-level writing courses for two 500-level courses. Students must take at least 9 hours in writing and 9 in literature, the remaining 6 to be selected from any English courses at the proper level. Of the courses in writing, at least 3 hours must be taken at the 500 level; additional 500-level courses are strongly recommended.

Writing Project

One of the following writing projects for 6 hours of credit is required.

- A thesis, using research to analyze some aspect of writing or rhetorical theory.
- A creative project, such as a collection of poems or short stories, a short novel, a play, or a creative work of non-fiction prose.

The nature and length of each project will be determined by the Director of Graduate Studies after consulting with the student and the project director. In addition to the director, two other Department of English faculty members will supervise and approve the project; at least one should be from the literature faculty.

Final Examination

The reading list may be modified by the MA examining committee, meeting as a body with the student, to reflect the candidate’s particular writing emphasis. However, most of the oral examination should focus upon the literature outlined in the original reading list.
DOCTOR OF PHILOSOPHY
ENGLISH MAJOR

Requirements
A student must successfully complete a program of study, normally six full semesters as outlined below, approved by the candidate’s committee or the Director of Graduate Studies in English.

Coursework
At least 54 hours beyond the BA (of which at least 30 hours must be beyond the MA) to include at least 21 hours at the 600 level; at least 15 hours at the 500 level or above (only 3 hours of 593 Independent Study may be applied toward the MA and 3 after the MA); a 3-hour course in teaching composition; and 15 additional hours at any level approved for graduate credit (including a maximum of 12 hours at the 400 level if approved by the Director of Graduate Studies).

Up to 6 of these additional hours may be taken in some cognate field or fields such as history, philosophy, and French. These courses must be drawn from those approved for graduate credit. All other coursework must be in the English department. In this coursework, students must normally maintain a 3.5 GPA.

Dissertation
Twenty-four hours of dissertation. These represent the research for and writing of the dissertation. The research and dissertation will be directed by a faculty member of the department and approved by a doctoral committee of three or four other faculty members.

Language Requirement
A language requirement met in one of the following ways.

- Two languages approved by the Director of Graduate Studies in English. The requirement for each language may be fulfilled by (a) completion of French 302 or German 332 with a grade of B or better; (b) completion at the University of Tennessee, Knoxville, of any two courses on the 300 level or above in the foreign language or literature with at least a grade of B in each course; (c) passing of the regular PhD foreign language examination as currently administered at the University of Tennessee, Knoxville.

- One modern language approved by the Director of Graduate Studies in English. This requirement must be fulfilled by a passing grade on the language examination given by the University of Tennessee, Knoxville, and completion of two courses given in the foreign language at the 400 level or above, at least one course to be at the 500-600 level. A minimum grade of B must be received in each course.

- One modern language approved by the Director of Graduate Studies in English and intensive study of the English language. This requirement must be fulfilled by completion of (a), (b), or (c) for one foreign language; and completion of 6 hours in English language courses with grades of B or better, at least 3 of which must be from English 508 or 509 History of the English Language (offered in alternate years only). For the other 3 hours, the student may either complete the history of the language sequence or choose one other course in language taught in the Department of English at the 500-600-level and approved by the Director of Graduate Studies in English. These courses will not count toward the minimum number of courses for the PhD, and anyone electing this language option may not take the comprehensive examination in linguistics.

Examinations
- A 4-hour qualifying examination taken before the end of the first year of PhD coursework. This examination is given three times a year with the MA written examination.
- A comprehensive written examination which may be divided as the department directs; see the English Department graduate student Web site. The comprehensive examination is given twice a year, normally in March and September. Before a student may take it, he/she must have completed all coursework required. A student must also have met all requirements for foreign languages before beginning the first part of the examination.

Dissertation Defense
A one-hour examination on the dissertation and other related areas.

Residence Requirement
Two consecutive semesters as a full-time student. For students not on teaching assistantships, full-time consists of 9 or more hours of coursework and/or dissertation hours each semester. For students on assistantships, full-time consists of at least 6 hours of courses and/or dissertation hours and 3 hours of teaching each semester.

DEPARTMENT OF GEOGRAPHY
http://web.utk.edu/~utkgeog/
Bruce A. Ralston, Head

Professors
Aiken, C.S., PhD .................................................. Georgia
Bell, T.L., PhD ........................................................ Iowa
Foresta, R.A., PhD .................................................. Rutgers
Harden, C.P., PhD .................................................. Colorado
Horn, S.P., PhD .......................................................... California (Berkeley)
Pulsipher, L.M., PhD .............................................. Southern Illinois
Ralston, B.A., PhD .................................................. Northwestern
Rehder, J.B., PhD .................................................. Louisiana State
Shaw, S.L., PhD ...................................................... Ohio State

Associate Professors
Grissino-Mayer, H., PhD ............................................. Arizona
Orvis, K., PhD ......................................................... California (Berkeley)

Assistant Professors
Drever, A., PhD ..................................................... California (Los Angeles)
Tran, L.T., PhD ....................................................... Hawaii

Adjunct Faculty
Gripshover, M.M., PhD ............................................. Texas
Liu, C., PhD .......................................................... Tennessee
McKeown, R., PhD ................................................... Oregon
Tankersley, R.D., PhD .............................................. Tennessee
Zanetta, M.C., PhD ................................................... Ohio State

MAJOR DEGREES
Geography MS, PhD

The master’s degree emphasizes development of professional competence as a geographer and offers opportunities to gain substantial depth in a concentration or major technique. An emphasis in geographic information science is available for students who have appropriate backgrounds in mathematics and computer science. The doctoral program is for those who have demonstrated proficiency in conducting independent research. The department is particularly well-qualified to direct graduate work in location analysis, transportation geography, urban and rural geography, cultural ecology, and the geography of the natural environment (especially biogeography and geomorphology). The faculty is qualified to direct students from a variety of approaches ranging from historical and humanistic to rigorously analytic and GIS-based.
MASTER OF SCIENCE
GEOGRAPHY MAJOR

Requirements
The department offers the thesis and non-thesis options for the Master of Science. Both options require a minimum of 30 hours beyond the completion of a sound undergraduate major program. The MS program requires students to have background in quantitative methods equivalent to the course content of Geography 415, and some familiarity with key themes and approaches in both physical and human geography. At least two-thirds of the total hours in the degree program must be at or above the 500 level and must include 501 (at each offering during residency), 504, and 3 hours at the 600 level. In the thesis option, 6 hours must be Thesis 500. A final examination is required in both programs.

DOCTOR OF PHILOSOPHY
GEOGRAPHY MAJOR

The doctorate is a research degree and is granted only to those who demonstrate proficiency in conducting independent research. Students must have a broad foundation and understanding of the discipline; these should have been achieved in a comprehensive master’s program.

Requirements
Course requirements for the degree shall be determined by the student’s faculty committee in accordance with specific interests and needs. The program must include 504, 515, 599, 9 hours of 600-level seminars, and (at each offering during residency) 501. A minimum of 9 hours must be earned in collateral fields, with courses selected for their relevance to the special fields. PhD students whose master’s-level work was in a field other than geography and for whom the master’s area remains close to their PhD specialty areas may petition to substitute geography hours in courses outside of their specialty areas for up to three of the nine required outside hours. Competency in quantitative methods and basic human and physical geography is required. Additional tools, including languages, will be required as appropriate to the student’s areas of research specialization.

Examinations required for admission to candidacy include a written comprehensive examination, comprised of two written examinations in which the student will be tested on his/her knowledge of two special fields, and related areas of geography; an oral examination on the student’s program, the special fields and related areas, and the dissertation proposal. All parts of the written comprehensive examination should be taken within the same semester.

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

DEPARTMENT OF HISTORY
http://web.utk.edu/~history/
Todd A. Diacon, Head
Thomas E. Burman, Graduate Liaison

Professors
Ash, S.V., PhD ........................................ Tennessee
Bohstedt, J., PhD ..................................... Harvard
Brummett, P., PhD .................................... Chicago
Crabtree, L. (Chancellor), PhD ....................... Minnesota
Diacon, T.A., PhD .................................. Wisconsin
Feller, D., PhD ..................................... Wisconsin
Norrell, R.J. (Bernadotte Schmitt Professor), PhD .... Virginia

Associate Professors
Appier, J., PhD ........................................ California (Riverside)
Bast, R.J., PhD ........................................ Arizona
Burman, T.E., PhD ................................... Toronto (Canada)
Dessel, J.P., PhD ...................................... Arizona
Fleming, C.G., PhD ................................ Duke
Freeberg, E., PhD ................................... Emory
Glover, L., PhD ...................................... Kentucky
Higgs, C.A., PhD ................................... Yale
Kulikowski, M., PhD ................................. Canada
Liu, L., PhD .......................................... California (San Diego)
Pielke, G.K., PhD .................................. Rutgers

Assistant Professors
DeWeerdt, H., PhD ................................... Harvard
McIntosh, J.L., PhD ................................ Johns Hopkins
Phillips, D., PhD ................................... Harvard
Sacco, L., PhD ...................................... Southern California
Tomkins, D., PhD .................................... Columbia
White, G., PhD ..................................... Temple

MAJOR DEGREES
History
MA
PhD

American history concentration
European history concentration

The MA program includes a thesis and non-thesis option. The doctoral program has concentrations in American and European history with special focuses in the areas identified under Group II doctoral fields and Group III teaching fields. Detailed information may be obtained from the Director of Graduate Studies in History who also advises all incoming students.

MASTER OF ARTS
HISTORY MAJOR

Admission
- Successful completion of a baccalaureate degree from an accredited institution, preferably with a major in history.
- Acceptable scores on the Graduate Record Examination (general).

Requirements
Complete 510 and a 600-level research seminar normally during the fall and spring semesters of the first year in the graduate program. Complete 521 in preparation for the MA examination. As many as 9 graduate hours taken elsewhere may be applied toward the MA degree. Except by prior approval of the Director of Graduate Studies, a student’s coursework must be at the 500 level or above.

Thesis Option
24 hours of coursework and 6 hours of Thesis 500 for a total of 30 hours are required. Thesis students are required to select one MA field and write a thesis. At the end of the program the thesis student will take a two-hour oral examination on both the thesis and the field.

Non-Thesis Option
A total of 30 hours of coursework is required. At least 6 hours must be completed in each of two MA fields. The primary field is examined by a two-hour written followed within one week by a one-hour oral examination with the single grade of pass/fail given at the conclusion of the oral examination. No examination is given on the secondary field.
Master of Arts Fields
- United States (colonial to present).
- Premodern Europe.
- Modern Europe.
- Asia.
- Retention and Termination.

A 3.0 overall grade point average is required to remain in good standing. MA students must take the MA examination no later than the semester following the completion of 30 hours. A student who fails the MA examination must repeat the examination no later than the following semester. A student who fails the examination a second time or does not take the examination when required will be dropped from the graduate program.

DOCTOR OF PHILOSOPHY
HISTORY MAJOR

Admission
- Successful completion of the MA degree from an accredited institution.
- Acceptable scores on the Graduate Record Examination (general).

Requirements
Before being admitted to doctoral candidacy, a student must fulfill the following requirements.
- Complete History 510 at the University of Tennessee, Knoxville, (may be waived for comparable experience elsewhere).
- Spend two consecutive semesters in residence.
- Complete 9 hours in one Group I doctoral field. There is no minimum hours requirement for a Group II field. Complete 9 hours in one Group III field, including the appropriate 511, 512, or 513 course and two additional courses at the 500 level. The Group III field must be in a different geographic area from the Group II field. Courses taken to fulfill MA degrees may be counted toward all field requirements.
- Fulfill the foreign language requirement.
- Complete two 600-level research seminars. (One must be completed at the University of Tennessee, Knoxville.) Students who have completed a master’s thesis need complete only one research seminar (must be taken at the University of Tennessee, Knoxville), and History 621.
- Maintain a 3.0 overall grade-point average in graduate work attempted.
- Complete 24 hours of graduate coursework (21 hours graded A-F) at the University of Tennessee, Knoxville, beyond that required for the MA. Up to 6 hours may be taken outside of the department.
- Except by prior approval of the Director of Graduate Studies, a student’s coursework must be at the 500 level or above.

Language Requirement
Students must demonstrate competence in one foreign language through coursework or examination. The student’s doctoral committee may specify any other languages or research tools, such as statistics, essential for the student’s preparation. The foreign language requirement must be fulfilled before taking the comprehensive examination.

Group III (Teaching Field) Examination
This is a one-hour oral exam that must be completed at any time before the comprehensive examination is taken. If a student fails the exam, he or she may retake the exam one time only and must do so the following semester. European and U.S. history courses may not be used for the Group III World History field.

Comprehensive Examination
The comprehensive examination consists of a written exam (Group I) and an oral exam (Group II) and must be taken no later than the semester following the semester in which the student completes the residence, coursework, and language requirement (summer excluded). Failure to take the comprehensive examination within the required time will be counted as a failure on the examination. No student will be permitted to take the comprehensive examination unless he or she has passed the Group III examination (see above) and has an overall grade point average of at least 3.0. Qualified students will be examined in one field selected from the Group I list below and one field selected from the Group II list below. The two exams are taken in the same semester. The Group I is an eight-hour written exam. It must be passed before the Group II can be taken. The Group II is a two-hour oral exam. A student who fails either exam must repeat it the following semester (summer excluded). A second failure on either exam will cause the student to be dropped from the history graduate program. A student who does not repeat a failed exam within the required time will likewise be dropped from the program.

Admission to Candidacy
Upon successful completion of the above requirements, a doctoral student may be admitted to candidacy.

Doctoral Fields
Group I. Pre-modern Europe; Modern Europe; United States (colonial to present).
Group II. To be defined by the student’s doctoral committee from within one of the following fields:
- United States – Colonial and Early Republic; 19th century; 20th century; Regional; Military and Foreign Relations; Social and Cultural; American Political.
- European – Ancient; Medieval; Early Modern; Modern; Political and Diplomatic; Intellectual and Cultural; Social and Economic; National Fields.
Group III (Examined Teaching Field). World History; Western Civilization; U.S. Civilization.

Dissertation and Defense
Original research forms the basis for the dissertation. Doctoral candidates must register for a minimum of 3 hours of 600 Dissertation Research each semester and must complete 24 hours of dissertation credit. A final oral defense is given on the dissertation in its historical context. The program must be completed within eight years from admission as a potential candidate.
INTERDISCIPLINARY PROGRAMS
Don Richard Cox, Associate Dean, College of Arts and Sciences, Director

The College of Arts and Sciences offers a series of interdisciplinary undergraduate majors and minors through its interdisciplinary programs. These programs include Africana studies, American studies, Asian studies, cinema studies, comparative literature, environmental studies, global studies, Judaic studies, Latin American studies, legal studies, linguistics, medieval studies, and women's studies.

Certain courses within these programs are available for graduate credit as listed below. See the Undergraduate Catalog for program descriptions and directors.

LINGUISTICS
Ilona Leki, English, Chair

GRADUATE CERTIFICATE IN LINGUISTICS

The linguistics program offers a graduate certificate designed to meet the needs of individuals wishing to apply linguistics in various professional fields. It draws upon the strengths of faculty members in applied linguistics, sociolinguistics, and theoretical linguistics. The requirements focus upon the central aspects of the discipline of linguistics and aim to develop students' basic knowledge and skills in the core disciplinary areas.

Upon successful completion of this program, students should have an understanding of the basic theoretical concepts and approaches of the discipline and have gained experience in the use of analytic and research techniques. It is also designed to meet the specific needs of those students who are preparing to teach foreign language at the high school/junior college level and/or to obtain advanced level proficiency in linguistics and cultural knowledge.

Prospective candidates for the certificate may take up to 6 hours of certificate classes before making application for admission to the certificate program. Once admitted to the program they must maintain a GPA of at least 3.0. Application to the certificate program must be made to the Chair of the Interdisciplinary Linguistics Program by submitting a letter of application and copies of undergraduate transcripts (and graduate transcripts, if applicable). A minimum of 15 hours is required; all courses must be selected in consultation with a program advisor, who must approve all courses for individual students prior to their being taken, except that, as noted above, up to 6 hours may be accepted from candidates upon admission. Students will satisfy the requirements of the certificate program by selecting 15 hours from the following lists, provided that those courses are selected in consultation with a program advisor, who approves their selection. A certificate cannot be earned without program approval by the advisor.

Requirements

- A 3-hour capstone project, normally the preparation of a paper for presentation at a professional conference or for publication in a journal, planned and completed in consultation with a program advisor.

- Additional courses from the following list for a total of 15 hours – Audiology and Speech Pathology 506, 601, 652, English 508, 509, 680, French 421, 422, 510, German 510, 541, 631, 632, Linguistics 400, 411, 426, 429, 435, 471, 472, 474, 476, 477, 485, 490, 575, Spanish 421, 531, Psychology 400, 543, 617, Statistics 531. Other courses may, where appropriate, be substituted for the courses listed above with the permission of the Chair of the Linguistics Program.

- A 3-hour capstone project, normally the preparation of a paper for presentation at a professional conference or for publication in a journal, planned and completed in consultation with a program advisor.

- Demonstrations of competency in reading medieval Latin, either by earning an A or B in Classics 435, or by passing the University of Toronto's MA Medieval Latin exam, given on campus in fall and spring semesters. Where appropriate, students may substitute competency in reading medieval Greek, Hebrew, or Arabic.

- A non-credit capstone project, usually a paper. The paper should be interdisciplinary in its approach to its topic and may be an outgrowth of a seminar paper in another course. This capstone paper must be presented to an audience of Medieval Studies committee members and other interested faculty and graduate students before the certificate is granted.

- Additional requirements of the linguistics program include coursework in the following disciplines: English 508, 509, 680, French 421, 422, 510, German 510, 541, 631, 632, Linguistics 400, 411, 426, 429, 435, 471, 472, 474, 476, 477, 485, 490, 575, Spanish 421, 531, Psychology 400, 543, 617, Statistics 531. Other courses may, where appropriate, be substituted for the courses listed above with the permission of the Chair of the Linguistics Program.
WOMEN’S STUDIES
Cheryl Brown Travis, Psychology, Chair

GRADUATE CERTIFICATE IN WOMEN’S STUDIES

The women’s studies program offers a graduate certificate, enabling students to develop critical thinking about the economic, social, and legal factors influencing women’s roles in contemporary and historical societies, and to evaluate those roles in the widest possible perspectives. Students may examine representations of women in the arts and the media, evaluate how science and medicine view women as objects of study, and study how women work as practitioners and researchers in these fields.

The program is designed to provide a supplementary perspective for students already enrolled in graduate programs, to provide an entry into graduate study for those who are exploring a number of disciplinary approaches, to provide enrichment for members of the community who have a bachelor’s or an advanced degree, and to develop skills for professionals in various fields.

Prospective candidates for the certificate may take up to 6 hours of certificate classes before making application for admission to the certificate program. Once admitted to the program, they must maintain a GPA of at least 3.0. Application to the certificate program must be made to the Chair of the Women’s Studies Program by submitting a letter of application and copies of undergraduate transcripts (and graduate transcripts, if applicable). A minimum of 15 hours is required; all courses must be selected in consultation with a program advisor, who must approve all courses for individual students prior to their being taken, except that, as noted above, up to 6 hours may be accepted from candidates upon admission. Students will satisfy the requirements of the certificate program by selecting 15 hours from the following lists, provided that those courses are selected in consultation with a program advisor, who approves their selection. A certificate cannot be earned without program approval by the advisor.

Requirements

- Women’s Studies 510.
- 12 additional hours, drawn from at least two different disciplines. For students enrolled in an MA program, no more than two of the certificate courses may be drawn from that program or the department in which the MA program is housed. Students are encouraged to select courses from at the 500 level and above. Students may choose from the following list – Anthropology 517; Cultural Studies in Education 512, 548, 609; English 584; Health 420, 520; Public Health 585; Law 849, 862, 958; Sport Studies 543; Women’s Studies 400, 410, 422, 425, 434, 469, 483, 510, 593.
- A capstone experience such as presenting research results to a professional group, submitting a work for publication, arranging an exhibit, or presenting a performance to a group approved by the individual advisor and the chair of Women’s Studies.

LIFE SCIENCES
(Interdepartmental)
John Koontz, Interim Chair

MAJOR
Life Sciences
- Genome science and technology concentration
- Plant physiology and genetics concentration

DEGREES
MS, PhD

The program leading to the Master of Science and Doctor of Philosophy with a major in life sciences is interdepartmental and intercollegiate and is designed to augment offerings of individual departments in two concentrations: genome science and technology, and plant physiology and genetics. Students interested in these areas should contact either the Life Sciences chairperson or the director of the area of interest. Each concentration is administered separately and has unique admission requirements.

GENOME SCIENCE AND TECHNOLOGY
CONCENTRATION
Cynthia Peterson, Director

The University of Tennessee-Oak Ridge National Laboratory Graduate School of Genome Science and Technology (GST) is a unique and multidisciplinary program for full time graduate study leading to the Master of Science or Doctor of Philosophy degree. The program focuses on developments in the biological and computational sciences relating to genome sequences, and the program is designed to take advantage of collaboration of the University of Tennessee, Knoxville, and the Oak Ridge National Laboratory. Students are trained in emerging areas of genome science, with emphasis on mammalian genomics, structural biology, proteomics, computational biology and bioinformatics, and bioanalytical technologies. Scientists from both campuses participate in teaching. Research projects pursued for either the MS or PhD are mentored jointly by a faculty member from each campus. A year-long introductory course in Genome Science and Technology focuses on inquiry conducted on a genome-wide scale. Laboratory rotations during the first year offer students hands-on experience in a variety of focus areas.

Applicants are expected to have a background in the biological, physical, or computational sciences. Requirements for admission are one year of general biology or the equivalent; two years of chemistry, including one year of general chemistry and one year of introductory organic chemistry with laboratory; one year of calculus; one year of physics; at least 8 hours in cognate sciences related to the program; a combined GRE score of 1800 for the verbal, quantitative, and analytical sections is highly desirable; three letters of recommendation; and a minimum grade point average of 3.0 out of 4.0. Coursework in genetics, cell biology and computer sciences is advantageous. Superior students, deficient in one or more of the above requirements, may be admitted at the discretion of the program admissions committee. Deficiencies will be made up as part of the courses taken by the individual student.

Requirements for the PhD are satisfactory completion of the genome science and technology core courses, (Life Sciences 505, 515-516, 520-521, 540-541; Biochemistry and Cellular and Molecular Biology 511 and 512); three semesters of GST laboratory, satisfactory completion of formal advanced courses in the areas of the student’s interest, passing both written and oral comprehensive examinations, a dissertation reporting the results of original and significant scientific research (a minimum of 24 hours of course 600 is required), a final oral/written examination on the dissertation, and a formal seminar presentation of the dissertation research. Participation in at least one seminar during each semester of residence after the first year is strongly recommended. The master’s degree requires a minimum of 30 hours of study approved by the student’s committee, a thesis, and an oral examination.
PLANT PHYSIOLOGY AND GENETICS
CONCENTRATION
Otto J. Schwarz, Director

This program provides the opportunity for intensive training and research experience in areas transcending the usual boundaries of botany, biochemistry, and agricultural plant sciences. Solutions of problems concerning the interactions of physiology and genetics in applied and fundamental aspects of plant science are the focus.

Admission requirements are a BA with a major in a biological, behavioral, or physical science; GRE (general) score; three letters of recommendation; and coursework including a year of calculus (differential and integral), one year of chemistry and a year of physics. Specific course deficiencies may be corrected during the first year.

Required courses are Life Sciences 510; Biochemistry and Cellular and Molecular Biology 511, 512; 521, 522; Plant Sciences 471 or Ecology and Evolutionary Biology 560; Microbiology 410. The master’s degree requires a minimum of 30 hours of study approved by the student’s committee, a thesis, and an oral examination. The minimum requirements for the doctoral degree include at least 6 hours above the 600 level, 24 hours of coursework, courses approved by the student’s committee, a comprehensive examination, a doctoral dissertation, and a defense of dissertation.

DEPARTMENT OF MATHEMATICS
http://www.math.utk.edu/
Robert J. Daverman, Interim Head
David F. Anderson, Graduate Liaison

Professors
Alexiades, V., PhD ........................................ Delaware
Anderson, D.F., PhD ........................................ Chicago
Conway, J.B., PhD ........................................ Louisiana State
Daverman, R.J., PhD ......................................... Wisconsin
Dobbs, D.E., PhD ........................................ Cornell
Dyadak, J., PhD ........................................ Warsaw (Poland)
Feng, X., PhD ........................................ Purdue
Gavrilents, S., PhD .......................................... Moscow State
Gross, L., PhD ........................................ Cornell
Hinton, D.B., PhD ........................................ Tennessee
Jordan, G.S., PhD ......................................... Wisconsin
Karakashian, O., PhD ...................................... Harvard
Lenhart, S., PhD ........................................ Kentucky
Mulay, S., PhD ........................................ Purdue
Plaut, C.P., PhD .......................................... Maryland
Rajput, B.S., PhD .......................................... Illinois
Richter, S., PhD ........................................ Michigan
Rosinski, J., PhD ......................................... Wroclaw (Poland)
Schaefer, P.W., PhD ....................................... Maryland
Simpson, H., PhD ......................................... California Institute of Technology
Soni, R.P., PhD .......................................... Oregon State
Stephenson, K.R., PhD ................................ Wisconsin
Sundberg, C., PhD ......................................... Wisconsin
Thistlethwaite, M., PhD ................................ Manchester (UK)
Wade, W.R., PhD ........................................ California (Riverside)
Wagner, G.G., PhD ......................................... Duke
Xiong, J., PhD ........................................ North Carolina

Associate Professors
Collins, C., PhD ........................................ Minnesota
Freire, A., PhD ........................................ Princeton
Schulze, T., PhD .......................................... Northwestern
Todorov, G.H., PhD .................................. Moscow State
Tzermias, P., PhD ........................................ California (Berkeley)

Assistant Professors
Brodsky, N., PhD ........................................ Saskatchewan (Canada)
Chen, X., PhD ........................................ Rutgers
Conant, J., PhD .......................................... ETH (Zurich)
Denzler, J., PhD .......................................... Temple

Lecturers
Baiamonte, M., MS ........................................ Texas A&M
Bonee, K., MS ........................................ Tennessee
Campbell, T., MM ........................................ Tennessee
Cook, T., MS ........................................ Tennessee
Fowler, J., MA ........................................ Kentucky
Guest, R., MS ........................................ Tennessee
Hagan, R., MS ........................................ Tennessee
Howard, J., MS ........................................ Tennessee
Kilialian, H., MS ......................................... Tennessee
Lawkins, W., PhD ........................................ Tennessee
Linwood, D., PhD ........................................ Courant Institute
Long, J., PhD ........................................ Michigan
McClerd, M., MA ......................................... Murray State
Mount, J., PhD ........................................ Illinois
Peery, M., MM ........................................ Tennessee
Pringle, K., PhD ......................................... Oregon
Reagan, R.D., MM ...................................... Tennessee
Remus, C., MS ........................................ Tennessee
Self, C., MS ........................................ Tennessee
Smith, K., MM ........................................ Tennessee
Stein, D., MS ........................................ Tennessee
Szczezepanski, A., PhD ................................ California (San Diego)

MAJOR DEGREES
Mathematics
MMath
Mathematics
MS

Mathematics
Applied mathematics concentration
PhD
Mathematical ecology/evolution concentration

The Mathematics Department has three graduate degrees—the Master of Mathematics degree, intended primarily for teachers; the Master of Science degree, designed to prepare students for industrial employment and for teaching; and the Doctor of Philosophy degree, designed to prepare students for industrial employment and for college and university teaching and research. Contact the department office for additional information.

A student offering mathematics as a minor for the master’s degree is required to obtain at least 6 hours of resident graduate credit in courses numbered above 400 and approved by both the major department and the Department of Mathematics.

For additional information, please visit the graduate Web site on the Department of Mathematics’ homepage at www.math.utk.edu.

MASTER OF MATHEMATICS

MATHEMATICS MAJOR

Before admission to the Master of Mathematics program, the applicant must have either (a) certification for teaching secondary mathematics in at least one state, or (b) three years of elementary school, secondary school, or community college teaching experience. Applicants must have successfully completed one year of calculus (141-142 or equivalent) and a course in matrix algebra (251 or equivalent).

Requirements

The following requirements must be met.

• Complete 30 hours of coursework of which 21 must be at the 500 level. The coursework must include 504, 505, 506, 507, and 6 hours in 509. At most, 6 hours may be taken outside the Department of Mathematics (selected in consultation with the advisor).
• Pass a final examination upon completion of all coursework.

In exceptional circumstances, part of admission requirement (b) might be satisfied concurrently with coursework. Normally, Master of Mathematics degree students will start the program by taking 504 during the summer.
MASTER OF SCIENCE MATHEMATICS MAJOR

Requirements
The department offers two options for the Master of Science degree. The first option requires a thesis for which 6 hours must be earned along with 24 additional hours of work in acceptable courses numbered above 400. Of the additional hours, 6 may be in an area outside the department and 15 must be in courses in mathematics numbered above 500.

After one semester of graduate study, a student whose advisory committee gives its approval may choose the non-thesis option, for which 30 hours in courses numbered above 400 are required. Of these, 21 hours (at least 15 of which must be in mathematics) must be in courses numbered above 500. Of the 30 hours, 9 in courses approved by the advisory committee may be taken in fields other than mathematics. For this option it is also required that a written final examination be passed and that credit be received for a reading course (598) in which a term paper or project is required.

APPLIED MATHEMATICS CONCENTRATION

Requirements
For this concentration, available under the thesis or the non-thesis option, the student must complete the following.

- Prerequisites – Numerical Algorithms 371 or Numerical Analysis 471 or Numerical Algebra 472; Methods in Applied Mathematics 512 or both Differential Equations II 431 and Partial Differential Equations 435; Honors Advanced Calculus 447-448 or Advanced Calculus I, II 445-446; Matrix Algebra II 453.
- One hour of Seminar in Applied Mathematics 519 or Seminar in Mathematical Ecology 589.

DOCTOR OF PHILOSOPHY MATHEMATICS MAJOR

Requirements
For the PhD program in mathematics, the student must meet the following five requirements in addition to those of the Graduate Council.

- Demonstrate competency in Advanced Calculus and Linear Algebra by either a satisfactory performance on a Diagnostic Examination or by passing the appropriate 400-level course with a grade of B or better by the end of the student’s first year of graduate school. The appropriate course for advanced calculus is the 447-448 sequence and for linear algebra is the 457-458 sequence or 453.
- Satisfy either the standard program or the interdisciplinary mathematical ecology/evolution concentration. A student intending to work in mathematical ecology/evolution may complete either, but is encouraged to complete the interdisciplinary mathematical ecology/evolution concentration.
- Take at least two different one-semester research seminars and 599.
- Pass an examination in the field of specialization after requirements in bullets 1-3 have been met. This examination will be given by a committee appointed by the department head. A student may take this specialty examination at most twice.

- Pass a one-year, 600-level sequence in mathematics outside the student’s area of specialization. The sequence selected to fulfill this requirement must be approved by the department head and the student’s doctoral committee. These requirements must be completed no later than the start of the student’s seventh year (as a mathematics graduate student at UT).

Standard Program
A student must pass written examinations on two of the following year-long sequences – algebra (551-552), analysis (545-546), computational and applied mathematics (571-572), differential equations (535-536), stochastics (523-524), and topology-geometry (561-562). A student must pass one examination by the middle of his/her third year and both examinations by the middle of his/her fourth year. A student may not take any examinations after four failures.

In addition to the two year-long sequences chosen for the written examinations, a student must take four other one-semester 500-level courses from the following list grouped by examination area – algebra (551-552, 555-556), analysis (545-546, 547), computational and applied mathematics (571-572, 574, 575, 577, 578), differential equations (513-514, 515-516, 531-532, 535-536, 537-538, 581-582, 585), stochastics (521-522, 523-524, 525-526, 526-528), and topology-geometry (561-562, 567-568). These four courses must contain a year-long sequence in an area different from the two written examinations and at least two areas different from the two written examinations.

A grade of B or better is required in each of the four courses, with at least a B+ in two of the courses.

MATHEMATICAL ECOLOGY/EVOLUTION CONCENTRATION
A student must pass written examinations on mathematical ecology (581-582) and one of the following year-long sequences – analysis (545-546), computational and applied mathematics (571-572), differential equations (535-536), and stochastics (523-524). A student must pass one examination by the middle of his/her third year and both examinations by the middle of his/her fourth year. A student cannot take any examinations after four failures.

In addition to the two year-long sequences chosen for the written examinations, a student must take four other one-semester 500-level courses from the following list grouped by examination area – analysis (545-546, 547), computational and applied mathematics (571-572), differential equations (535-536), and stochastics (523-524). A student must pass one examination by the middle of his/her third year and both examinations by the middle of his/her fourth year. A student cannot take any examinations after four failures.

In addition to the two year-long sequences chosen for the written examinations, a student must take four other one-semester 500-level courses from the following list grouped by examination area – analysis (545-546, 547), computational and applied mathematics (571-572), differential equations (535-536), and stochastics (523-524). A student must pass one examination by the middle of his/her third year and both examinations by the middle of his/her fourth year. A student cannot take any examinations after four failures.

The following pairs of Ecology and Evolutionary Biology courses count as a one-semester course – 509/514, 511/514, and 512/514. For the purposes of this requirement, the following year-long sequences – algebra (551-552), analysis (545-546), computational and applied mathematics (571-572), differential equations (535-536), stochastics (523-524), and mathematical ecology/evolution (583), Ecology and Evolutionary Biology (509, 511, 512, 514). These four courses must contain a year-long sequence in an area different from the two written examinations and at least two areas different from the two written examinations. A grade of B or better is required in each of the four courses, with at least a B+ in two of the courses.
DEPARTMENT OF MICROBIOLOGY

http://web.bio.utk.edu/micro/

Jeffrey M. Becker, Head
Pamela Small, Graduate Liaison

Professors
Becker, J.M., PhD ............................................. Cincinnati
Brian, D.A., PhD/DMV ................................. Michigan State
Moore, R.N., PhD .......................... Texas
Riggsby, W.S., PhD ............................................. Yale
Rouse, B.T., PhD ........................................... Guelph (Canada)
BVSc .......................................................... Bristol (UK)
Sayler, G.S., PhD ............................................. Stanford
Small, P.L.C., PhD ........................................... Tufts
White, D.C. (Distinguished Scientist), MD, PhD ............................................. Rockefeller

Associate Professor
Jouline, I., PhD .............................. St. Petersburg (Russia)
Wilhelm, S., PhD ................................. Western Ontario

Assistant Professors
Alexandre, G., PhD ................................. Université Claude Bernard Lyon
Buchan, A., PhD ............................................. Georgia
Onami, T.M., PhD ........................................... California (San Diego)
Reynolds, T., PhD ......................................... Vanderbilt
Sangster, M.Y., PhD .............................. Western Australia (Perth)
Sparer, T.E., PhD ........................................ Emory University School of Medicine
Su, C., PhD ........................................ Penn State
Zinser, E., PhD ........................................ Harvard

Research Assistant Professors
Fleming, J., PhD ........................................ Tennessee
Hauser, M., PhD ........................................ California (Irvine)
Layton, A.C., PhD ......................................... Purdue
Lee, B-K, PhD ........................................... Tennessee
Pfiffner, S., PhD .............................. Florida State
Ripp, S., PhD ........................................ Oklahoma State
Sanseverino, J., PhD .................................... Lehigh
Suvas, S., PhD ................................. IMTECH (India)

MAJOR DEGREES
Microbiology MS, PhD

The Department of Microbiology offers both the Master of Science and Doctor of Philosophy. Students have the option of selecting from a variety of graduate research programs. For a departmental brochure, contact the department head.

Admission

Students are expected to have completed an undergraduate program with a 3.0 or better GPA on a 4.0 system, included in the undergraduate course credits should be a full year of general biological science; one year of calculus; two years of chemistry, including one year of organic; one year of physics; and an introductory course in microbiology. In many cases, deficiencies in requirements may be removed by taking appropriate courses during the first year of graduate study. The department also requires the general portion of the Graduate Record Examination. A satisfactory score on each part is 550 or higher with rare exceptions. Three letters of recommendation should be submitted by current or former faculty members.

Each new graduate student meets with an advisory committee chaired by the departmental Director of Graduate Studies to plan a program of study for the first one or two semesters until a research advisor is selected. All first-year students participate in a laboratory rotation program during the first semester of study. This program allows the student to adjust smoothly to the research programs of the department, to develop a background of research procedures and concepts, and to facilitate the selection of a research professor. Usually the student selects a research professor toward the end of the laboratory rotation period. The major professor assists in the selection of and carrying out of a suitable research program and in the naming of a thesis or dissertation committee.

MASTER OF SCIENCE

MICROBIOLOGY MAJOR

The program leading to the MS is designed to provide the student with broad basic knowledge, to permit the acquisition of technical competence in the fundamentals of research, and to encourage creative and independent thinking.

Requirements

Two to three calendar years are usually needed for the course of study that has the following requirements.

• 30 hours including 6 thesis hours.
• A 3.0 GPA in all courses taken for graduate credit after 12 hours have been earned in courses graded on the A-F system.
• A 3.0 GPA in courses taken in the department.
• A complete course sequence in biochemistry or molecular biology.
• Presentation of a research thesis and its oral defense.

DOCTOR OF PHILOSOPHY

MICROBIOLOGY MAJOR

The program leading to the PhD is designed to develop the student’s ability to pursue independent and original research in microbiology and allied fields, to teach both oral and written communication of the results of research to the scientific community, and to train effective teachers. Students may enter the program after receiving either a bachelor’s or master’s degree. Students who enter with a bachelor’s degree usually receive the PhD after four or five years; those with the master’s degree usually take three or four years to complete the degree.

Requirements

Departmental requirements are as follows.

• A 3.0 GPA in all courses taken for graduate credit after 12 hours have been earned in courses graded on the A-F scale.
• A 3.0 GPA in courses taken in the department.
• Satisfactory performance in at least one semester as a teaching assistant.
• One semester of physical chemistry.
• One course in statistics.
• Two semesters of biochemistry or molecular biology.
• Satisfactory performance in a comprehensive examination that must be attempted before the end of the fifth semester in the program and passed before admission to candidacy.
• The presentation of a research dissertation and its oral defense.
MASTER OF ARTS

FRENCH MAJOR

Thesis Option

• Completion of a minimum of 24 hours in coursework plus at least 6 hours in course 500 Thesis. French 501 is required. A maximum of 6 hours may be taken at the 400 level, the rest at the 500 level, and under certain conditions the student may take 600-level seminars. If the student chooses to have a minor (such as Italian or Portuguese), at least 24 hours (including 6 hours of thesis) must be taken in the major, 6 in the minor.

• A thesis, with a minimum of 6 hours in course 500.

• A written examination covering the coursework and selected items from a master reading list.

• A final oral examination covering the thesis.

Non-Thesis Option

• Completion of at least 30 hours, with a maximum of 9 at the 400 level, the rest at the 500 level, including French 501. Under certain conditions, the student may take 600-level seminars. If the student chooses to have a minor (such as Italian or Portuguese), at least 24 hours must be taken in the major, 6 in the minor.

• A research paper from a course, which the candidate substantially expands with the approval of the committee.

• A written examination covering the coursework and selected items from a master reading list.

• A final oral examination to discuss the research paper.

GERMAN MAJOR

Thesis Option

The minimum requirements are 24 hours of coursework and 6 hours of Thesis 500. German 510 and 519 are required, as are three courses on German literature or culture, one of which may be at the 400 level. In addition, students must take three further courses, only one of which may be chosen from 411-412 or 485. All graduate teaching assistants should take 512, and other candidates may take 512 or any other course above 500. A maximum of three 400-level courses may be counted toward the 24 hours of course credit. An exam over the designated reading list is required, is a thesis defense and a standardized language exam, such as the Zentrale Mittelstufenprüfung. Students who are interested in future Ph.D-level study are strongly advised to choose the thesis option.

Non-Thesis Option

The minimum requirements are 30 hours of coursework, including at least one 600-level course, for which a seminar paper is required. German 510 and 519 are required, as are three courses on German literature or culture, one of which may be at the 400 level. In addition, students must take three further courses, only one of which may be chosen from 411-412 or 485. All graduate teaching assistants should take 512, and other candidates may take 512 or any other course above 500. A maximum of three 400-level courses may be counted toward the 24 hours of course credit. An exam over the designated reading list is required, as is a standardized language exam, such as the Zentrale Mittelstufenprüfung. Each non-thesis MA candidate will have a committee of three faculty members in German to whom the student will submit a dossier consisting of the seminar paper and one paper previously submitted in a graduate course. The length and type of the papers is described in greater detail in the Manual for Graduate Students in German.

The Department of Modern Foreign Languages and Literatures offers graduate programs leading to the Master of Arts degree with majors in French, German and Spanish, and the Doctor of Philosophy degree with a major in modern foreign languages. Inquiries should be addressed to the graduate liaison.
**SPANISH MAJOR**

**Thesis Option**
- Completion of a minimum of 24 hours in coursework plus at least 6 hours in course 500 Thesis. Spanish 550 is required. A maximum of 6 hours may be taken at the 400 level, the rest at the 500 level, and under certain conditions the student may take 600-level seminars. If the student chooses to have a minor (such as Italian or Portuguese), at least 24 hours (including 6 hours of thesis) must be taken in the major, 6 in the minor.
- A thesis, with a minimum of 6 hours in course 500.
- A written examination covering the coursework and selected items from a master reading list.
- A final oral examination covering the thesis.

**Non-Thesis Option**
- Completion of at least 30 hours, with a maximum of 6 at the 400 level, the rest at the 500 level, including Spanish 550. Under certain conditions, the student may take 600-level seminars. If the student chooses to have a minor (such as Italian or Portuguese), at least 24 hours must be taken in the major, 6 in the minor.
- Three term papers that have been accepted by the student’s advisory committee.
- A written examination covering the coursework and selected items from a master reading list.

**DOCTOR OF PHILOSOPHY**

**MODERN FOREIGN LANGUAGES MAJOR**

The PhD with a major in modern foreign languages requires advanced training in a major language (French, German, Spanish) and either a second language (French, German, Italian, Portuguese, Russian, Spanish) or applied linguistics.

**Admission**

Applicants must have completed a BA in French, German or Spanish to be accepted into this program. Both graduates of institutions in the United States and those with undergraduate degrees from institutions outside the United States must have a grade point average of at least 3.0. Consideration will also be given to applicants who do not have an undergraduate degree in one of the three foreign languages but do have the equivalent of an undergraduate major in one of them.

**Requirements**

Candidates must complete a minimum of 63 hours of coursework beyond the bachelor’s degree in addition to 24 hours of doctoral research and dissertation.

For candidates with French or Spanish as a first concentration, two tracks are available.

- **Track I.** The coursework for Track I must be distributed as follows: at least 39 hours in the first concentration; at least 18 hours in the second concentration; and at least 6 hours in a cognate field or in either the first or second concentration as approved by the student’s graduate committee.

- **Track II.** The coursework for Track II must be distributed in this way: at least 45 hours in the first concentration; at least 12 hours in the second concentration; and at least 6 hours in a cognate field or in either the first or second concentration as approved by the student’s graduate committee. Because Track II students will have taken 12 graduate hours instead of 18 hours in the second concentration, they will normally not be eligible to teach that field at institutions which follow SACS guidelines for college foreign language teaching.

The coursework for all concentrations must be distributed as follows.

- **First Concentration: German.** A minimum of 39 hours of German courses beyond the bachelor’s degree, distributed as follows.
  - 400 level – A maximum of 6 hours of 400-level classes taken for the MA may be applied.
  - 500 level – A minimum of 21 hours must be taken. These must include German 512, 519, and 560. Thesis hours are excluded. If 512 is used as part of a second concentration in applied linguistics, another course must be substituted in the first concentration.
  - 600 level – A minimum of 12 hours must be taken, exclusive of dissertation hours.

- **First Concentration: French or Spanish.** A minimum of either 39 (Track I) or 45 (Track II) hours of French or Spanish courses beyond the bachelor’s degree, distributed as follows.
  - 400 level – A maximum of 6 hours of 400-level classes taken for the MA may be applied.
  - 500 level – A minimum of 21 (Track I) or 27 (Track II) hours must be taken. These must include French 512, 519, 584 or Spanish 512 and 550. Thesis hours are excluded. If 512 is used as part of a second concentration in applied linguistics, another course must be substituted in the first concentration.
  - 600 level – A minimum of 12 hours must be taken, exclusive of dissertation hours.

- **Second Concentration.** A minimum of 18 (German or Track I) or 12 (Track II) hours beyond the bachelor’s degree, taken in the field of applied linguistics or in a second language, either French, German, Italian, Portuguese (Track II only), Russian or Spanish. For Track I and German, 12 of these hours must be at the 500 level or above. For Track II, 3 of these hours must be at the 500 level or above.

  - French students choosing applied linguistics must take French 421 or 429; 425; 512; and 9 (Track I) or 3 (Track II) hours of appropriate electives in English or French.

  - German students choosing applied linguistics must take German 425, 435 or 510, 512, 3 hours of German linguistics, such as 426, 436, 631, or 632, and 6 hours of linguistics electives in English or German.

  - Spanish students choosing applied linguistics must take Spanish 421 or 429; 425; 512; and 9 (Track I) or 3 (Track II) hours of appropriate electives in English or Spanish. The student’s graduate advisor must approve the electives chosen.

  - **Cognate Field.** Six hours in graduate courses numbered 400 and above in a field outside the department or language family of the first concentration but related to the student’s principal area of research. Students choosing applied linguistics as a second concentration are strongly urged to take their cognate work in a second language. With the consent of the student’s graduate committee, the 6 hours in the cognate field may be substituted by 6 hours in either the first or second concentration.

  - **Additional requirements.** For any languages taken as a first or second concentration, a student must demonstrate competence by taking a test. The test will include reading, writing, listening, and speaking, and should be completed by the time the student reaches 40 hours of study beyond the bachelor’s degree. Standardized examinations that may be used for this purpose include applicable portions
of either the National Teachers Examination, the MLA Examination for Teachers and Advanced Students, or the proficiency standards of the United States Foreign Service Institute (FSI).

For students choosing applied linguistics as an area of second concentration, reading competence in a second language is required. Competence will be determined by translation of a text from the foreign language into English, the test will be administered by the department.

A comprehensive examination on the language and literature of the first and second concentrations must be passed before the student may be admitted to candidacy. The candidate is required to defend his/her dissertation in an oral examination. Central emphasis is put on the doctoral dissertation as a final test of the candidate’s scholarly qualifications.

Graduate Teaching Assistants with a second concentration in another language should have the opportunity and will be strongly encouraged to instruct in the languages of both their first and second concentration, subject to staffing needs.

Domestic and international students are strongly encouraged to reside and study abroad and will be assisted in identifying potential sources of financial support (e.g., Fulbright, McClure, Rotary fellowships).

**SCHOOL OF MUSIC**

http://www.music.utk.edu

Roger L. Stephens, Director

Angela L. Baye, Associate Director for Graduate Studies

**Professors**

Bayne, P.S., MLS ................................................................. North Carolina
Brock, J.P., MM ................................................................. Alabama
Coker, J., MA ................................................................. Sam Houston
Jacobs, K.A., DMA .............................................................. Texas
Leach, C.F., DM ............................................................... Northwestern
MacMorran, W.S., MM ......................................................... Wisconsin
McClelland, D.K, MA .......................................................... Columbia
Moore, M.C, PhD ............................................................... Michigan
Northington, D.B., DMA ......................................................... Yale
Pederson, D.M., PhD ............................................................. Iowa
Sousa, G.D., PhD ................................................................. East Carolina
Stephens, R., MM ................................................................. Maryland

**Associate Professors**

Adams, F., MM ................................................................. Tennessee
Baldwin, W., DMA ............................................................... Maryland
Baye, A.L., DMA ................................................................. South Carolina
Binder, S., DM ................................................................. Florida State
Boling, M., MM ................................................................. Tennessee
Brown, D.R. ................................................................. Memphis
Brunell, D., DM ................................................................. Indiana
Carter, P.Z., MM ................................................................. Colorado
Freeman, C., MPA ................................................................. Oklahoma City
Gay, L.C., PhD ................................................................. Columbia
Hough, D.H., MM ............................................................... Tennessee
Murphy, B.A., PhD ............................................................. Ohio State
Royse, P., PhD ................................................................. Kent State
Ryder, D., DMA ................................................................. Iowa
Searle, S.R., MM ................................................................. Tennessee
Smith, C., BM ............................................................. State University of New York
Sperl, G.R., MM ................................................................. Indiana
Stephens, M.B., MA, MM ......................................................... Ohio State
Wentzel, A.N., MM ........................................................... Southern California
Zelmanovich, M., MA ........................................................... Lvov

**Assistant Professors**

Al-Tae, N., PhD ................................................................. California (Los Angeles)
Browne, S., MM ................................................................. Rice
Carlson, R.G., PhD .............................................................. North Carolina
DiSimone, L., MM .......................................................... New England Conservatory of Music
Ewell, P., PhD ................................................................. Yale
Fellenbaum, J., MM ........................................................... Northwestern
Frisco, C., DMA ................................................................. South Carolina
Hawthorne, W.W., PhD .......................................................... Cincinnati
Skoog, A., MA ................................................................. Stephen F. Austin

**Lecturers**

Brown, K., BA ................................................................. Tennessee
Holloway, H., BM ............................................................. Tennessee
McCollough, S., MM ........................................................ Tennessee

**Part-time Lecturers**

Dunne-Sousa, D., PhD ......................................................... Ohio State
Hart-Reilly, K., BM .......................................................... Tennessee
Ladd, K., PhD ................................................................. Ohio State
Secrist, P., MM ................................................................. Yale
Smithy, D., MM ................................................................. Tennessee
Thompson, D.V., MM ........................................................ DePaul
Vincent, L., MM ................................................................. Tennessee
Werner, W., MM ................................................................. Tennessee

**MAJOR DEGREE**

**DEGREE**

**Music**

- Accompanying concentration
- Choral conducting concentration
- Composition concentration
- Instrumental conducting concentration
- Jazz concentration
- Music education concentration
- Music theory concentration (optional emphasis in Music Technology)
- Musicology concentration
- Pedagogy concentration (Piano or Vocal)
- Performance concentration (Organ, Percussion, Piano, Strings, Voice, or Winds)

**Graduate Certificate Program**

- Artist Certificate in Music

**Mission Statement**

The mission of the School of Music is to provide the highest quality instruction in the musical arts and to cultivate creative activity and research in the areas of composition, education, musicology, pedagogy, performance, and theory. As part of its mission, the school enriches the musical and educational lives of its students, the university community and citizens of Tennessee. In support of this mission, the school’s curricula and course offerings are designed to

- Develop technical and artistic abilities in performance.
- Foster individual and collaborative work.
- Promote an understanding of theoretical, historical and cultural studies of music.
- Provide skills in teaching and the knowledge of educational principles.
- Encourage interpretive, creative and scholarly expression. Such preparation enables students to be competitive in music careers and related fields and to continue study at an advanced level.

To foster a greater understanding of music, the faculty regularly engage in artistic, educational, and scholarly activities through performances, workshops, publications, and participation in professional organizations.

The school fulfills its service mission to enrich the educational and cultural life of the university community at large by offering a broad range of courses, performance opportunities, as well as public concerts, recitals, and musical productions.

The school also aims to promote a greater understanding of cultural diversity among faculty and students; build a diverse student and faculty community; and offer curricula that require students to engage with the musical richness of our world and develop their own musical identities within an increasingly interconnected globe.
MASTER OF MUSIC

MUSIC MAJOR

Applicants must have completed an undergraduate degree that is approximately equivalent in music requirements to degrees conferred by the University of Tennessee, Knoxville, with a major appropriate to the applicant’s prospective area of concentration on the master’s level.

Applicants who plan to pursue the concentration in performance or music education are required to audition for the appropriate area faculty. Applicants for admission to the program in composition must submit scores and tape recordings of representative works. Applicants for the concentration in jazz, if appropriate, must audition in jazz improvisation and jazz piano proficiency and interview with members of the faculty in this area. Other applicants are required to have an interview with members of the faculty of the prospective area of concentration.

All entering master’s degree students are required to take Diagnostic Examinations in music theory, ear-training, and music history/literature. These examinations are given by the School of Music at the beginning of each semester.

Requirements

A minimum of 33 hours of coursework is required for the Master of Music degree. These hours are specifically distributed according to the area of concentration. All concentrations require coursework in music bibliography, music history/literature and music theory and allow for elective courses. Specific curricula are available from the school. All concentrations require a written and oral final examination.

A thesis is required of students in composition, musicology, and music theory. A graduate recital or performance project is given in lieu of thesis by students with concentrations in performance, pedagogy, jazz, accompanying, choral conducting, and instrumental conducting.

The concentration in music education is designed for persons who hold a bachelor’s degree in music or music education and certification to teach music in the public schools. Both thesis and non-thesis options are available.

ARTIST CERTIFICATE IN MUSIC

The Artist Certificate in Music is a full-time graduate performance program designed to prepare the most talented, outstanding keyboard and string performers for careers as professional performing musicians. Students accepted into this certificate program must demonstrate the ability to perform advanced repertoire with technical and artistic mastery and have the potential for success at major competitions or auditions for major orchestras, or want to begin a professional career. Students will take courses that build the repertoire, artistry, and performance skills necessary for a professional performer.

Admission

Applicants to this graduate certificate program must hold a minimum of the bachelor’s degree or equivalency, and follow the procedures and regulations for applying for admission to graduate study at the University of Tennessee, Knoxville, and the Graduate Division of the School of Music. Required credentials for admission to the School of Music include an application, university application fee, official transcripts of all post-secondary studies, two letters of recommendation, and a repertoire list. Students whose first language is not English must submit TOEFL results of 550 (paper-based test), 213 (computer-based test), or 80 (Internet-based Test) or higher to be considered for admission.

Final admission to the certificate program is granted following successful completion of a thirty-minute Artist Certificate audition. The audition repertoire should include selections demonstrating the student’s ability to perform in various musical styles. If distance to the audition is a hardship, applicants may submit a thirty-minute videotape/DVD (public performance preferred); the student must also present a live audition before a designated faculty committee during the first semester of residence.

Once accepted, all students are required to take the diagnostic examinations in musicology, area literature, music theory, and ear training before registering for courses. The examinations are given on the first day of registration each semester, beginning at 9:00 a.m. and concluding at approximately 4:00 p.m. Each entering student should notify the graduate secretary to indicate the semester that s/he intends to enter and take the examinations.

Program of Study

Students may specialize in string or keyboard performance. To receive the Artist Certificate in Music, the student must successfully complete an artist certificate curriculum of at least 19 hours (see School of Music Graduate Handbook, available in 211 Music Building) with a cumulative GPA of 3.0 or better. The curriculum is centered on intensive activities related to performance, including private lessons, large and small ensembles, recitals, and courses in area literature, performance practices, and repertoire. Courses chosen for music electives should be lecture courses. All required recitals are to be performed in public with a committee of the School of Music faculty in attendance. Enrollment for a minimum of two semesters is required with a maximum of two years allowed for completion of the program. The School of Music may require additional hours. All course requirements must be completed at the University of Tennessee, Knoxville.

DEPARTMENT OF PHILOSOPHY

http://web.utk.edu/~philosophy/

John R. Hardwig, Head
Kathleen E. Bohstedt, Graduate Liaison

Professors

Aquilla, R.E., PhD.................. Northwestern
Cohen, S.M., PhD.................. Northwestern
Graber, G.C., PhD.................. Michigan
Hardwig, J.R., PhD.................. Texas
Noll, J.E., PhD.................. Ohio State
Postow, B.C., PhD.................. Yale

Associate Professors

Bohstedt, K.E., PhD................. Ohio State
Hamlin, H.P., PhD.................. Georgia

Assistant Professors

Arnold, D., PhD.................. Minnesota
Davis, J.K., JD, PhD................ Washington
Douglas, H., PhD.................. Pittsburgh
Reidy, D.A., JD, PhD................ Kansas

Adjunct Faculty

Gale, R.M., PhD.................. New York

MAJOR DEGREES

Philosophy
Religious studies concentration

Philosophy
PhD

The MA program includes thesis and non-thesis options and offers a concentration in religious studies. Detailed information may be obtained from the Director of Graduate Studies in Philosophy. Details concerning the religious studies concentration may be obtained from the Director of Graduate Studies in the Department of Religious Studies.
MAJOR OF ARTS
PHILOSOPHY MAJOR
Requirements
Thesis Option
The course requirements for an MA with thesis are 30 hours, including 6 hours in Philosophy 500. Of non-thesis hours, at least two-thirds must be in courses at or above the 500 level. See the department’s graduate student handbook for more specific details.

Non-Thesis Option
The non-thesis MA requires 30 hours of coursework of which at least two-thirds must be in courses at or above the 500 level. Students seeking the non-thesis option must also pass a final written examination on all work offered for the degree. An additional oral examination may be required. As a part of the master’s degree, and in addition to a final comprehensive examination, a culminating (capstone) experience is expected. Examples of culminating experiences include presenting a paper at a refereed national or regional philosophy conference, or presenting a paper at a departmental colloquium.

DOCTOR OF PHILOSOPHY
PHILOSOPHY MAJOR
Requirements
Students will ordinarily hold an MA with a major in philosophy or an equivalent degree when entering the PhD program. However, highly qualified applicants without an advanced degree may be admitted directly to the PhD rather than MA program if that is their preference. For students taking an MA in our department, 24 hours of additional coursework beyond those applied to the MA degree are required. For students admitted directly into the program without an advanced degree, 48 hours of coursework are required. For those admitted with advanced degrees in other fields, the number of hours required will be determined by the Graduate Committee. In all cases, this does not include credit hours for work on the dissertation (Philosophy 600) and the student’s dissertation committee may require additional coursework at its discretion. See the department’s graduate student handbook for more specific requirements.

Students must normally demonstrate a reading knowledge of one living foreign language in which there exists a significant body of philosophical literature. (In special circumstances relating to the area of dissertation research, the Graduate Committee may approve a language not satisfying these conditions, or the requirement of a foreign language may be waived in favor of other appropriate research skills, if approved by the Graduate Committee upon recommendation by the Director of Graduate Studies.)

DEPARTMENT OF PHYSICS AND ASTRONOMY
http://www.phys.utk.edu/
Soren P. Sorensen, Head
Marianne Breinig, Director of Graduate Program

Professors
Barnes, F.E. (Joint Faculty), PhD .................................................. California
Bingham, C.R., PhD ................................................................. Tennessee
Bliss, W.E., PhD ................................................................. Michigan State
Breinig, M.J., PhD ............................................................... Oregon
Callicott, T.A., PhD ............................................................... Purdue
Compton, R.N., PhD .............................................................. Tennessee
Crawford, H.W. (UTSI), PhD ...................................................... Yale
Dagotto, E.R. (Distinguished Professor), PhD ......................... Bariloche (Argentina)
Equiluz, A.G. (Joint Faculty), PhD ............................................. Brown
Esthion, S.B., PhD ................................................................. Massachusetts
Georgiou, S., PhD ................................................................. Manchester (UK)
Greene, G.L. (Joint Faculty), PhD .............................................. Harvard
Guidry, M.W., PhD ................................................................. Tennessee
Handler, T., PhD ................................................................. Rutgers
Kamyshkov, I., PhD .............................................................. ITEP (Russia)
Levin, J.C., PhD ................................................................. Oregon
Lewis, J.W.L. (Distinguished Professor, UTSI), PhD ............... Mississippi
Maye, J. (Distinguished Professor), PhD ................................. Rensselaer Polytechnic Institute
Moreo, A. (Joint Faculty), PhD ............................................... Bariloche (Argentina)
Nazarewicz, W., PhD .............................................................. Warsaw (Poland)
Painter, L.R., PhD ................................................................. Tennessee
Pegg, D.J., PhD ................................................................. New Hampshire
Plummer, E.W. (Distinguished Professor), PhD ................. Cornell
Quinn, J.J. (Lincoln Chair), PhD ............................................. Maryland
Read, K.F. (Joint Faculty), PhD ................................................ Cornell
Riedinger, L.L., PhD .............................................................. Vanderbilt
Shih, C.C., PhD ................................................................. Cornell
Siopsis, G., PhD ................................................................. California Institute of Technology
Sorensen, S.P., PhD .............................................................. Copenhagen (Denmark)
Thompson, J.R., PhD ............................................................. Duke
Weitering, H.H. (Joint Faculty), PhD ................... Groningen (Netherlands)
Zhang, Z. (Joint Faculty), PhD .................................................. Rutgers

Associate Professors
Dai, P., PhD ................................................................. Missouri
Davis, L. (UTSI), PhD ......................................................... Auckland (New Zealand)
Efremenko, Y.Y. (Joint Faculty), PhD ...................................... ITEP (Russia)
Fainger, C. (UTSI), PhD ......................................................... Otago (New Zealand)

Assistant Professors
Barzykin, V., PhD ................................................................. Illinois
Buczacz, R., PhD ................................................................. Warsaw (Poland)
Papenbrock, T.F. (Joint Faculty), PhD ................................... Heidelberg (Germany)
Spanier, S.M., PhD .............................................................. Mainz (Germany)

Director of Undergraduate Laboratories
Parks, J.E., PhD ................................................................. Kentucky

DEGREES
MAJOR

MS
Astrophysics concentration
Atomic, molecular, optical, and low temperature physics concentration
Biophysics concentration
Chemical physics concentration
Condensed matter and surface physics concentration
Elementary particle physics concentration
Geophysics concentration
Health physics concentration
Mathematical and computational physics concentration
Nuclear and relativistic heavy ion physics concentration
Theoretical physics concentration

PhD
Astrophysics concentration
Atomic, molecular, optical, and low temperature physics concentration
Biophysics concentration
Chemical physics concentration
Condensed matter and surface physics concentration
Elementary particle physics concentration
Mathematical and computational physics concentration
Nanomaterials concentration
Nuclear and relativistic heavy ion physics concentration
Theoretical physics concentration

Departmental graduate programs leading to the MS and the PhD are also available at the University of Tennessee Space Institute, Tullahoma, where opportunities for study and research are available in laser applications, quantum and applied optics, laser spectroscopy, fluid physics, medical physics, computational physics, and theoretical physics. For additional information, contact the department head.

Admission
A student who enrolls in graduate study with the intention of attaining an advanced degree in physics will have completed an undergraduate major in physics or its equivalent. Physics 311-312, 321, 361, 431-432, 421, 461, and 411-412 constitute the minimum courses prerequisite to graduate study.
A student who intends to present physics as a graduate minor will have completed an undergraduate minor in physics or its equivalent. Physics 311 and 431-432 constitute the minimum coursework prerequisite to a minor in physics.

In addition to meeting the Graduate Council’s minimum requirements, applicants are strongly encouraged to submit scores from the Graduate Record Examination (general and subject).

All first-year graduate students are required, for advising purposes only, to take a diagnostic examination in undergraduate physics during the fall semester registration period.

**MASTER OF SCIENCE PHYSICS MAJOR**

**Requirements**

**Thesis Option**

The course requirements include 24 hours of physics courses, of which at least 12 hours are taken from Physics 506, 511-512 or 513-514, 521-522, 531, 541, 571, 573. Each candidate must present an acceptable thesis, 6 hours of 500, and pass an oral examination on course material and thesis.

**Geophysics concentration.** The department offers an MS thesis program with a concentration in geophysics. Program requirements are: 12 hours from Physics 506, 513-514, 521-522, 531, 541, 571, 573; a minimum of 12 additional hours in geology, geophysics, and/or physics, as approved by the student’s committee; and the presentation of an acceptable thesis, 6 hours of Physics 500, and the passing of an oral examination on course material and thesis.

**Project Option**

The course requirements include a minimum of 30 hours of graduate credit in courses composed of Physics 506, 511-512; 6 hours from Physics 593, 594 for a Project in Lieu of Thesis; 9 hours from 411-412, 421, 431-432, 461-462, 507, 508, 521-522, 531, 541, 555, 571, 573 (at least 3 hours above the 500 level); and 6 hours from a single minor field outside of the Physics Department, such as computer science, mathematics, engineering, chemistry, biology, education, business, or law.

The candidate must pass an oral examination on course material and on the project representing the culmination of an original research project completed by the student. A written report must be approved and accepted by the Physics Graduate Committee and the department head. An electronic version of the written report must also be submitted to the permanent electronic archive of the Physics Department available to the Internet.

**Non-Thesis Option**

Students seeking the non-thesis option must apply to the department’s graduate committee for permission to enroll under this program. The requirements are the satisfactory completion of 30 hours of coursework composed of 18 hours from Physics 506, 511-512 or 513-514, 521-522, 531, 541, 571, 573; 6 hours in a minor field; and 6 hours from other courses numbered above 400 (preferably of advanced laboratory nature.) At least 20 hours must be taken at the 500-level or above. In addition, the candidate must pass a written examination administered by his/her committee.

**DOCTOR OF PHILOSOPHY PHYSICS MAJOR**

**Requirements**

All students are expected to take the graduate core curriculum in physics consisting of Physics 521-522, 531, 541, 551, and 571. Students concentrating in chemical physics may substitute Chemistry 572 for Physics 551, and should complete at least 6 hours from Chemistry 530, 570, 571, 573, 595, 630, 670, and 690. Students must take a minimum of 15 hours of 600-level courses, with 6 of these hours in their concentration area. Physics 601-602 are normally required of students concentrating in atomic physics; Physics 621-622 of students in nuclear physics; Physics 626-627 of students in elementary particle physics (and/or Physics 611-612 for students concentrating in theoretical elementary particle physics); Physics 615-616 of students in astrophysics and cosmology; and Physics 671-672 of students in condensed matter and surface physics.

Students concentrating in nanomaterials must take a minimum 15 hours of 600-level courses, of which at least 6 hours are offered by the department and at least 6 hours are from a list of courses offered by several departments which are appropriate for a concentration in nanomaterials. This list is available from the Director of the Graduate Program. In addition to the departmental core curriculum listed above, they must take additional courses at the 400- through 500-level, with at least 6 hours offered by the department and 6 hours from the list.

To be admitted to PhD candidacy students must fulfill all general requirements by the Graduate Council; pass the qualifying examination; have at least a 3.0 GPA on the graduate core curriculum in physics; form a doctoral committee; and pass the comprehensive examination.

The qualifying examination is designed to test the student's general knowledge of the fundamentals of physics. The performance needed to pass this examination corresponds to a mature command of the material typically included in the undergraduate physics major curriculum. The qualifying examination should be passed after the student’s first year of study. Based on the student’s performance on the qualifying examinations; the coursework; the GRE scores; and optional research participation, the faculty will decide if the student will be allowed to continue in the PhD program.

Students are required to find a research advisor and form a doctoral committee before the end of the second year of study. This committee is responsible for advising the student and monitoring his/her progress toward the doctoral degree.

The comprehensive examination is designed to test the student on specific knowledge and skills in the areas essential to the student's research program; capability to successfully complete the doctoral dissertation; and general knowledge of the graduate core curriculum. The most essential component of this examination is the presentation and defense of an original research proposal. The comprehensive examination must be passed before the end of the third year of study. It contains both a written and an oral component and is conducted by the student’s doctoral committee and an additional faculty member appointed by the department head.

The dissertation topic will be chosen with reference to one of the fields in which research facilities can be made available either at the University of Tennessee laboratories in Knoxville, the University of Tennessee Space Institute at Tullahoma, Tennessee; the Oak Ridge National Laboratory, Oak Ridge, Tennessee; or at other research facilities used by the university faculty.

**DEPARTMENT OF POLITICAL SCIENCE**

http://web.utk.edu/~polisci/

David L. Feldman, Head
Robert Gorman, Graduate Coordinator

**Professors**

Cunningham, R.B., PhD .................................................. Indiana
Feldman, D.L., PhD ................................................... Missouri
Fitzgerald, M.R., PhD .................................................. Oklahoma
Foltz, D.H., PhD .......................................................... Delaware
Freedland, P.K., PhD .................................................... Wisconsin
Gant, M.M., PhD .......................................................... Michigan State
Gorman, R., PhD .......................................................... New York
Lyons, W., PhD ............................................................ Oklahoma
Scheb, J.M., PhD .......................................................... Florida
Stephens, Jr., O.H. (Alumni Distinguished Service Professor), PhD .................................................. Johns Hopkins
Tonn, B., PhD ............................................................. Northwestern
Zhong, Y., PhD ............................................................ Kentucky
MAJORS DEGREES
Planning MSP
Environmental planning concentration
Land use planning concentration
Public administration concentration
Real estate development/economic development concentration
Transportation planning concentration
Urban design concentration
Political Science MA, PhD
Public Administration MPA, JD-MPA

The Department of Political Science offers the Master of Arts, Master of Public Administration, Master of Science in Planning, and Doctor of Philosophy. The department also offers a dual program with the College of Law. Inquiries concerning all programs should be directed to the departmental office.

Admission
Three departmental recommendation forms must be submitted to the Department of Political Science, at least two of which must be completed by instructors at the institution most recently attended. In addition, scores on the general portion of the Graduate Record Examination must be submitted.

MASTER OF ARTS
POLITICAL SCIENCE MAJOR
Admission
A bachelor’s degree or its equivalent is required for admission. Normally an overall average of 3.0 is also required together with an average of 3.2 in the last two years of political science or social science. In addition, a composite score of 1100 on the verbal and quantitative parts of the GRE is normally required.

Requirements
Thesis Option (30 hours)
Coursework, preparation of a thesis, and an oral examination on coursework and the thesis, is required. At least 12 of these hours must be in political science, with 6 in the field of methodology (Political Science 510 and either 511 or 512). Six hours may be earned through thesis credit.

Non-Thesis Option (36 hours)
Coursework, plus a written comprehensive examination on all coursework is required. At least 12 of these hours must be in political science, with 6 in the field of methodology (Political Science 510 and either 511 or 512), and 3 hours in the 600-level research seminar in the student’s first field of interest.

MASTER OF PUBLIC ADMINISTRATION
PUBLIC ADMINISTRATION MAJOR
Admission
Applicants for admission to the program must have a bachelor’s degree or its equivalent. Normally, an overall average of 3.0 and an average of 3.2 in the last two years of political science or social science courses are required. In addition, a composite score of 1100 on the verbal and quantitative parts of the GRE is desired.

Exceptions to this requirement will be considered on an individual basis.

Requirements
The MPA is a non-thesis program requiring 39 hours. Specific requirements include the following.

Core Curriculum (24 hours)
- General Perspectives (9 hours) – 550, 552, and one from 442, 539, 540, 548, 558, or 566.
- Analytical skills (6 hours) – 512, 514.
- Management skills (9 hours) – 560 and two from 556, 562, 564.

Specialization (9 hours) – A specialization is designed by the student in consultation with the coordinator of the MPA program. Possible specializations include general government, public health, budgeting and finance, planning, natural resources, program evaluation, criminal justice, public relations, personnel, and others.

Recommended Internship (6 hours) – Internships are arranged in consultation with the coordinator of the MPA program.

Final Examination – A written final examination, which may be followed by an oral examination, is required.

DUAL JD-MPA
The College of Law and the Department of Political Science in the College of Arts and Sciences offer a coordinated dual degree program leading to the conferral of both the Doctor of Jurisprudence and Master of Public Administration degrees. In this program, a student may earn the MPA and JD in about four years rather than the five years that otherwise would be required. Students pursuing the dual degree program should plan to be enrolled in coursework or an internship for one summer term in addition to taking normal course loads for four academic years.

Admission
Applicants for the JD-MPA program must make separate application to, and be independently accepted by, the College of Law for the JD and the Department of Political Science and the Office of Graduate and International Admissions for the MPA degree. Applicants must also be accepted by the dual degree committee. All applicants must submit a Law School Admission Test (LSAT) score. An applicant’s LSAT score may be substituted for the Graduate Record Examination (GRE) score, which is normally required for admission to the MPA program. Application may be made prior to or after matriculation in either the JD or the MPA.
program, but application to the dual program must be made prior to entry into the last 29 hours required for the JD and prior to entry into the last 15 hours required for the MPA.

Requirements
A dual degree candidate must satisfy the requirements for both the JD and the MPA degrees, as well as the requirements for the dual program. The College of Law will award a maximum of 9 hours of credit toward the JD degree for successful completion of approved graduate level courses (500 or 600 level) offered in the Department of Political Science. The MPA program will award a maximum of 9 hours of credit toward the MPA degree for successful completion of approved courses offered in the College of Law. All courses for which such cross-credit is awarded must be approved by the JD-MPA coordinators in the College of Law and the Department of Political Science. All candidates for the dual degree must successfully complete Administrative Law (Law 821). An internship is strongly recommended for students in the dual degree program, as it is for all MPA candidates, but an internship is not required.

During the first two years in the dual program, students will spend one academic year completing the required first year of the College of Law curriculum and one academic year taking courses solely in the MPA program. During those first two years, students may not take courses in the opposite area, without the approval of the JD-MPA coordinators in both academic units. In the third and fourth years, students are strongly encouraged to take both law and political science courses each semester.

Dual degree students who withdraw from the program before completion of the requirements for both degrees will not receive credit toward either the JD or the MPA degree for courses taken in the other program except as such courses qualify for credit without regard to the dual program.

Awarding of Grades
For grade recording purposes in the College of Law and the Department of Political Science, grades awarded in courses in the other unit will be converted to either Satisfactory or No Credit and will not be computed in determining a student's GPA or class standing. The College of Law will award a grade of Satisfactory for an approved MPA course in which the student earns a grade of B or higher and a grade of No Credit for any lower grade. The Political Science Department will award a grade of Satisfactory for an approved law course in which the student earns a grade of 2.3 or higher and a grade of No Credit for any lower grade. The official academic record of the student maintained by the Office of the University Registrar shall show the actual grade assigned by the instructor without conversion.

MASTER OF SCIENCE IN PLANNING

PLANNING MAJOR
The Master of Science in Planning (MSP) degree is the normal route for entry into professional positions in urban and regional planning or related fields. Graduates are candidates for positions in regional, city, county, and metropolitan planning agencies; in local, state, and federal agencies concerned with physical, economic, and administrative planning; in private business and organizations dealing with development problems; and in private consulting. The Planning Accreditation Board, a joint undertaking of the American Institute of Certified Planners and the Association of Collegiate Schools of Planning, accredits the MSP program.

Admission
Applicants for admission to the program must have a bachelor's degree or its equivalent. Normally, an overall grade point average of 3.0 and an average of 3.2 in the last two years of undergraduate courses are required. In addition, a composite score of 1100 on the verbal and quantitative parts of the GRE is desired. Students must demonstrate proficiency in the use of software applications for the personal computer, as well as in statistics. Taking an undergraduate statistics course can satisfy the latter. Achieving a satisfactory grade in Political Science 596 can fulfill the software applications requirement. Exceptions to this requirement will be considered on an individual basis.

Requirements
The MSP is a non-threshold program requiring 43 hours. Specific requirements include the following.

- **Core Curriculum (28 hours)** – 514, 531, 560, 581, 582, 583, 584, 585, 589, and 596 (1 hour). Students should plan to enter the program in the fall term to take core courses in the proper sequence.
- **Concentration (9 hours)** – Each student must choose a concentration from the environmental planning, land use planning, public administration, real estate development/economic development, transportation planning, and urban design. Concentration courses are drawn from a prescribed set in the subject area from the department's curriculum and from other departments in the university.
- **Recommended Internship (6 hours)** – Internships are arranged in consultation with the coordinator of the MSP degree program.
- **Comprehensive Exam** – Each student must pass a final comprehensive exam. Successful completion of a comprehensive exam is required before graduation. The exam will normally be taken after completion of the core requirements in the second year. Based on the material generally used by the American Institute of Certified planners (AICP), this requirement provides an additional capstone experience as well as preparation for meeting AICP professional certification requirements.

DOCTOR OF PHILOSOPHY
POLITICAL SCIENCE MAJOR
The PhD program prepares students for careers in college teaching, as well as careers in other occupations related to service in the public or private sectors.

Admission
Applicants for admission to the program should normally have completed a master's degree in political science or a related field with a 3.5 GPA and have earned a composite score of at least 1100 on the verbal and quantitative parts of the Graduate Record Examination.

Requirements
Doctoral students admitted to the program must complete 84 hours beyond the bachelor's degree, including 24 hours of coursework beyond the master's degree, graded A-F, must successfully pass written comprehensive examinations in two broad subfields of political science, and must pass a final oral examination on the dissertation.

In addition, students must satisfy a research tool requirement. Usually, students meet this requirement by completing 12 hours of coursework numbered above 500 in empirical theory and research methodology. However, if a student's advisor and program committee certify that competency in a foreign language is
Environmental Policy Minor

The department houses a program designed to give graduate students an opportunity to develop an interdisciplinary specialization in environmental policy. The program is designed to give master’s and doctoral level graduate students an opportunity to develop an interdisciplinary specialization in environmental policy. While administered through the Political Science Department, the program is coordinated by a committee of representatives from the following participating departments and programs – Agricultural Economics; Civil and Environmental Engineering; Ecology and Evolutionary Biology; Economics; Forestry, Wildlife and Fisheries; Geography; Management; Political Science; and Sociology.

Students may request admission to the minor following admission to a graduate program in one of the participating departments. Students in good standing in one of these programs may apply for admission to the minor in environmental policy. The coordinating committee will consider the admission of interested students. Applicants should have a background in both natural and social sciences evidenced by prior coursework or experience.

Requirements

One course in environmental studies from the student’s major discipline and one course in quantitative methods are required. These requirements may be fulfilled before or after admission to the minor. All students admitted to the minor will be required to register for Political Science 549, and to complete successfully the following:

- At least 69 hours must be in political science courses.
- At least 54 hours in political science must be in courses numbered above 500.
- Completion of Political Science 510, 511, and 512.
- Completion of at least three courses or seminars at the University of Tennessee, Knoxville, in each of the two broad subfields in which the students take examinations.
- Completion of at least one course or seminar in each of the five broad subfields available for graduate instruction in the department.
- At least 6 hours must be earned in political science courses numbered above 600.
- A total of 24 hours must be earned by writing the dissertation.

Doctoral students seeking a minor in environmental policy must also complete, in addition to above, a policy-relevant dissertation approved by the coordinating committee.
Requirements
All students must complete 32 hours of graduate level courses in psychology. These hours must include 515, 521-522, or Statistics 531-532 or an equivalent sequence; 565 or 420; 6 hours of Thesis 500; and 12 hours of 500- or 600-level foundation courses; plus additional graduate level hours to reach the 32-hour requirement. Students must earn a grade of B or better in all courses that are to count toward the 32-hour total. Students must also propose, conduct and successfully defend an original piece of research in the form of a master’s thesis.

DOCTOR OF PHILOSOPHY
PSYCHOLOGY MAJOR
A student with a BA or BS may apply to the Department of Psychology for admission to the doctoral program with a concentration in clinical psychology, counseling psychology, or experimental psychology. All students must submit scores from the Graduate Record Examination (general and subject).

CLINICAL PSYCHOLOGY CONCENTRATION
This program is designed to lay the groundwork for a career as a clinical psychologist capable of working in both academic and applied settings. The program emphasizes the theoretical foundations of psychology as well as supervised experience oriented toward the development of practical skills. The program embodies a model of clinical psychology in which practice and research are integrated.

Requirements
After forming the doctoral committee, each student must pass a comprehensive examination administered and evaluated by the committee. Clinical program students must complete a pre-dissertation research project by the end of the second year.

The comprehensive examination is organized around a research case study of one client who has been assessed and/or treated by the student in the departmental psychological clinic. In addition to the case presentation, the paper presents the student's comprehensive review of relevant research and theory as a context for procedure, results, and discussion of the case. All doctoral students must complete a minimum of 78 hours of graduate level courses, including courses required by their program; at least 6 hours in courses outside of psychology; and at least 24 hours of dissertation research (Psychology 600). Finally, students must complete an acceptable doctoral dissertation and conduct a satisfactory oral defense of the dissertation.

Requirements are as follows.
• Apprenticeship with one faculty member during the first year, two days each week.
• Pre-dissertation research project completed before forming a doctoral supervisory committee, reported in written form acceptable to two members of the faculty or, if reviewed and accepted for publication or external presentation, by one member of the faculty.
• Supervised clinical placement two days (16 hours) each week during the second year, and the following option during the third and fourth years — continued two day clinical placement in the third and fourth years; or teaching assistantship in the department in either the third or fourth year and two-day clinical placement in the other year.
• Satisfactory completion of listed courses (or equivalents) in the following categories.
  1. Foundations of Psychology: Biological Factors, Perception, Learning, Thinking, Motivation (513).
  2. Interviewing and Observation (558) and Laboratory (559).
  3. Research Practicum (509), 4 hours.
  4. Life-Span Development (512) or Developmental Psychology (511).
  5. Personality: Theory and Research (570) and Developmental Psychopathology (597).
  8. Psychological Assessment I and II (594-595) and Laboratory (596).
  9. Analysis of Variance for Social Sciences (521) and Multiple Regression for Social Sciences (522).
  11. Field Placement in Clinical Psychology (695), 18 hours.
  13. Psychometrics (555).
  15. Psychodynamic Psychotherapy I and II (670-671) and Laboratory (673), 4 hours.
  16. Doctoral Research and Dissertation (600), 24 hours.
• Students who choose a teaching assistantship in the third or fourth year must have satisfactorily completed 528 College Teaching in Psychology.
• Satisfactory completion of a one-year clinical internship at a site approved by the program.

COUNSELING PSYCHOLOGY
CONCENTRATION
The counseling psychology program is based upon the scientist-practitioner model of training, which stresses both research and practice. It is designed to enable students to become behavioral scientists, skilled in psychological research and its application. Students are trained to work with people who have generally integrated or intact personalities, to focus on these individuals' strengths and assets, and to use relatively brief interventions to further enhance these strengths or to remediate deficiencies within them. While working with others, counseling psychologists tend to focus on the interactions of the personal, educational and vocational environments of the individuals, groups, families and organizations with whom they work.

Requirements
The counseling psychology program consists of a minimum of 107 hours of graduate credit. This includes 83 hours of coursework and 24 hours of dissertation research (see below).

Students are assigned a temporary faculty advisor upon admission to the program. By the end of their first calendar year students are expected to have selected an advisory committee. Prior to taking their comprehensive examinations, students must form and meet with their doctoral committee, present an acceptable program of study to the doctoral committee, and have their research competency approved by the program’s research review committee. The examinations cover the counseling psychology core and the student’s cognate.

In addition to approving a student’s program of study, the doctoral committee approves the student’s dissertation proposal and verifies that the student’s dissertation is acceptable for the doctoral degree. The doctoral dissertation is original research that is theoretically based and psychological in nature. It must fulfill the requirements and procedures as stated in the University of Tennessee, Knoxville, Graduate Catalog, current edition.
The following are required of all students.

- Students must accumulate a minimum of 600 hours in practicum experience. Students are required to have three semesters of individual practicum and one semester of group practicum. Practicum sites include the University of Tennessee, Knoxville, Counseling Center; community agencies; the University of Tennessee, Knoxville, Career Resources Center; and area schools. Opportunities for additional practicum experiences exist in the community.
- In addition to coursework, students must demonstrate competency in research methodology and academic scholarship prior to the doctoral committee’s approval of the student’s dissertation proposal. The research project is to be initiated after the student has entered the counseling psychology program.
- Satisfactory completion of the following curriculum.
  A. Psychological Foundations – minimum of 21 hours.
    1. History and Systems of Psychology.
    2. Biological Bases of Behavior.
    4. Social Basis of Behavior.
    5. Individual Behavior – minimum of 6 hours.
    6. Life Span or Developmental Psychology.
  B. Quantitative and Research Skills – minimum of 15 hours.
    1. Statistics – minimum of 6 hours.
    2. Qualitative Research – minimum of 3 hours.
  C. Counseling Psychology Core – minimum of 39 hours.
    1. Prepracticum in Career Development.
    2. Vocational Theory and Practice.
    3. Practicum – minimum of 9 hours.
    5. Cross-cultural Counseling.
    7. Assessment – minimum of 6 hours.
    8. Group Counseling.
  D. Departmental Seminar.
- Students are also required to complete a 2000-hour internship prior to graduation. In consultation with the student and the student’s doctoral committee chair, the Training Director approves the internship site, which must meet APA Guidelines.
- Students who wish to have experiences as a teaching assistant must first satisfactorily complete department’s teaching practicum course.

EXPERIMENTAL PSYCHOLOGY CONCENTRATION

The PhD program in psychology with a concentration in experimental psychology is designed to allow students to select from a variety of specializations oriented toward careers in research, teaching, and application of psychology in academic, institutional, or industrial settings. The program is flexible, individualized, and emphasizes a professional apprenticeship model of training.

Requirements

- 12 hours of statistics and research (521-522 or Statistics 531-532 or equivalent and 6 additional hours in research methods or design).
- 15 hours in experimental psychology (565 or equivalent and four courses from the following – 510, 511 or 512, 513, 543, 546 or 547, 550, 560, and 570 or 571).
- 6 hours of research practicum (509).
- Psychology 528 – preparation for college teaching.
- Two 600-level graduate seminars.
- 6 hours of graduate level courses outside the Psychology Department.
- Pre-dissertation research project involving the collection of original data or the original analysis of existing data, reported in publishable form and accepted by the student’s advisory committee.
- Comprehensive examination, determined and evaluated by the student’s doctoral committee. This examination is comprised of an integrative review or theoretical paper and an oral exam or additional questions.
- 24 hours of dissertation research (600).
- An original piece of research in the form of a doctoral dissertation, proposed, conducted, and defended.

DEPARTMENT OF RELIGIOUS STUDIES

http://web.utk.edu/~religion

Gilya G. Schmidt, Head
Johanna Steibert, Graduate Liaison

Professors

Fitzgerald, J.L., PhD .......................... Chicago
Hackett, R.I.J., PhD .......................... Aberdeen (UK)
Levering, M.L., PhD .......................... Harvard
Reynolds, C.H., PhD .......................... Harvard
Schmidt, G.G., PhD .......................... Pittsburgh

Associate Professors

Gwynne, R.W., PhD .......................... Washington
Hodges, J.O., PhD .......................... Chicago
Hulsether, M.D., PhD .......................... Minnesota

Assistant Professors

Jacobs, R., PhD .......................... Northwestern
Shepardson, C.C., PhD .......................... Duke
Stiebert, J., PhD .......................... Glasgow (UK)

Adjunct Faculty

Heffernan, T.J.A., PhD .......................... Cambridge (UK)

A Master of Arts with a major in philosophy and a concentration in religious studies is available. Contact the department for details of this program. Graduate courses in religious studies provide opportunity for students in a variety of disciplines to pursue work in religious studies as a graduate concentration.

DEPARTMENT OF SOCIOLOGY

http://web.utk.edu/~utsocdep/

R. Scott Frey, Head
Sherry Cable, Graduate Liaison

Professors

Frey, R.S., PhD .......................... Colorado State
Hastings, D.W., PhD .......................... Massachusetts
Jalbert, A., PhD .......................... State University of New York (Binghamton)
Shover, N.E., PhD .......................... Illinois

Associate Professors

Bohan, S., PhD .......................... Penn State
Cable, S., PhD .......................... Penn State
Dahms, H., PhD .......................... New School for Social Research
Jones, R.E., PhD .......................... Washington State
Kurth, S.B., PhD .......................... Illinois (Chicago)
Shefner, J., PhD .......................... California (Davis)

Assistant Professors

Bui, H., PhD .......................... Michigan State
Gellert, P., PhD .......................... Wisconsin
Pressler, L., PhD .......................... Cincinnati
The Sociology Department offers graduate study leading to the Master of Arts and the Doctor of Philosophy. The MA program includes a thesis and non-thesis option.

The criminology concentration includes 505, 551, 653 and 655. The environmental sociology concentration includes 560, 661 and 665. The political economy concentration includes 504, 541, 543, 644, and 645.

Both the master’s and the doctoral program allow for the construction of individualized programs of study. Detailed information may be obtained from the Programs and Curriculum Committee in Sociology. New students are admitted in fall semester only. Applications must be received by the Office of Graduate and International Admissions by February 1.

Admission

- Acceptable scores on the general Graduate Record Examination (verbal, quantitative, and analytical) are required.
- Overall undergraduate grade point average (GPA) of 3.0 or higher.
- Three letters of recommendation (forms may be obtained from the department).
- Completion of the appropriate previous degree (baccalaureate, preferably with a major in one of the social sciences, for the MA program; master’s degree in one of the social sciences for the doctoral program).

MASTER OF ARTS

SOCIOLOGY MAJOR

Requirements

THEESIS OPTION

A minimum of 30 hours beyond the baccalaureate degree, including 24 hours of coursework and 6 hours of Thesis 500, is required. Students must complete Sociology 521, 531, Statistics 531, and one foundation course (504, 505, or 560). At or near the end of all coursework, the student must take an oral examination on course material and thesis. The examination will be administered by the student’s committee.

Non-Thesis Option

A minimum of 30 hours of coursework is required, including Sociology 521, 531, Statistics 531, and one of the following: 504, 505, or 560. Sociology 534, 622, and Statistics 532 are recommended. A student’s plan of study should follow one of these approaches.

- Plan 1 – 6 hours in one of the department’s concentrations and 6 hours in a second area, including areas outside the department, subject to the approval of the student’s committee.
- Plan 2 – 12 hours in a special area of study approved by the student’s committee and the department’s Programs and Curriculum Committee. Students are encouraged to prepare a paper synthesizing their knowledge of the concentration(s). Students who incorporate supervised field experience in their programs are encouraged to prepare a report based on those experiences that demonstrates their understanding of research, theory, and report writing. All students must take final written and oral examinations that include questions on their general coursework in theory and methods and on their special areas of study.

Subject to approval by the student’s committee, up to 12 hours may be taken in courses outside the department for either program. Sociology courses at the 400 level may also be taken with the approval of the student’s committee.

DOCTOR OF PHILOSOPHY

SOCIOLOGY MAJOR

Requirements

Twenty-four hours of coursework beyond the master’s degree are required (exclusive of Satisfactory/No Credit credits). Twelve hours of course credit in Sociology at the 600 level are required. Students who enter the program without the courses required for the MA (521, 531, and Statistics 531) or their equivalents must take them as remedial work, which does not apply to their residence. Students must complete Sociology 522, 534, 633, and 636; and Statistics 532 or another advanced course in statistics. Completion of 9 hours in each of two concentrations is encouraged. A student who cannot achieve his/her educational goals within the department’s concentrations may construct an individualized course of study subject to the approval of the student’s doctoral committee and the Curriculum Committee. Sociology courses at the 400 level may not be taken without the consent of the student’s advisor and the Curriculum Committee. Six hours may be taken in related fields without petitioning for approval. The student’s program may include a minor or cognate field.

Comprehensive Examinations

Written examinations in four areas are required (sociological theory, research methodology, and two substantive areas). Doctoral students are eligible to take the theory and methodology examinations whenever offered. Substantive examinations may be taken upon completion of theory and methodology examinations. Detailed information on examinations and examination options may be obtained from the department.

Dissertation and Final Examination

A dissertation based on original research must be completed (24 hours). The candidate must pass an oral defense of the dissertation, including the theory and methodology related to the research, in accordance with the deadlines specified by the Office of Graduate Student Services.

Environmental Policy Minor

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

Intercollegiate/Interdisciplinary Gerontology Minor

Graduate students in the Department of Sociology may pursue an intercollegiate/interdisciplinary minor in gerontology. The gerontology minor gives the student an opportunity for combining knowledge about aging in American society with his/her major concentration.

Core courses and a practicum are offered by the College of Social Work and selected departments within the Colleges of Education, Health, and Human Sciences and Arts and Sciences. A cross-listed seminar between contributing programs is designed to integrate experiences from different sources and to demonstrate the multi-faceted nature of working within an aging society. Please refer to the College of Education, Health, and Human Sciences for specific requirements.
MAJOR DEGREE

Theatre MFA

Costume design concentration
Dramaturgy concentration
Lighting design concentration
Performance concentration
Scene design concentration

UT Theatre maintains an active presence on the international theatre scene through the engagement of distinguished guest artists, touring to foreign theatre festivals, participation in international conferences, and other educational initiatives.

Applicants must have completed undergraduate degrees approximately equivalent in requirements to those specified for degrees conferred by the University of Tennessee, Knoxville.

Admission

Three letters of recommendation and interviews with appropriate faculty are required of all applicants. Applicants for admission to the MFA design/technical theatre programs must submit samples of their work. Auditions are required of MFA degree performance applicants. Not all areas of concentration accept applicants every year.

For detailed information about the graduate program, contact the Director of Graduate Studies, Department of Theatre.

MASTER OF FINE ARTS
THEATRE MAJOR

Requirements

At least 60 hours, 40 of which must be at the 500 level or above, are required for the Master of Fine Arts with a major in theatre, which is normally to be completed in three consecutive years of full time residence. Theatre 501 is required the first year of residence. Three additional hours at the 500 level are required from history, literature, or dramaturgy. Students in the MFA degree program are evaluated annually by juried performance or portfolio submission. Continuation in the program is with the approval of the faculty committee for the MFA degree program. Theatre 599 (Projects in Lieu of Thesis) and an oral defense of the project must be completed satisfactorily before the degree is conferred.

In addition to the core requirements listed above, each area of concentration has specific requirements.

DESIGN CONCENTRATION

Required courses are at least 12 hours of Theatre 580 and at least 6 hours in the projects courses. Theatre 503 is required in the first year of residence.
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 and leadership potential. 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 log- cally, and to develop a commensurate plan of action. Above all else, we strive to instill the irrepressible desire to continue to learn and grow in knowledge throughout the student’s life.

Interdisciplinary partnerships are encouraged among aca- demic 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 offers programs leading to five advanced degrees – the Doctor of Philosophy with majors in business administration, economics, industrial and organization psychology, and management science; the Master of Arts with a major in economics; the Master of Science with majors in human resource development, management science, and statistics; the Master of Accountancy; and the Master of Business Administration.

A limited number of teaching and other assistantships that re- quire from ten to twenty 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. Ap-
To obtain an MBA application for the full-time program, contact the MBA Program Office, 527 Stokely Management Center, College of Business Administration, The University of Tennessee, Knoxville, Tennessee 37996-0552, Phone (865) 974-5033; e-mail mba@utk.edu. The application may also be downloaded from the Web site at http://mba.bus.utk.edu. For the executive programs, contact the Center for Executive Education, 708 Stokely Management Center, College of Business Administration, The University of Tennessee, Knoxville, Tennessee 37996-0575; Phone (865)974-5001.

**Full-Time MBA**

The full-time MBA program is designed for students with undergraduate degrees in a wide variety of fields, including the social and natural sciences, the humanities, and professional fields such as engineering, business, agriculture, and architecture. In addition, most students in this program should have two or more years of work experience beyond their undergraduate degree(s). The MBA program is a seventeen-month program with students beginning in late July of each year and graduating in December of the following year. During the summer between the second and third semesters, students must complete an internship with a company using these skills acquired during the first year of the MBA program.

The MBA program consists of a common core (29 hours) and a selection of concentration and elective courses (15 hours). The first-year core develops a general management foundation upon which specialization is developed in the concentration area.

The objective of the seventeen-month program is to develop leaders able to enhance the success of their global organizations. Specific emphasis is placed upon competency in the area of integrated value chain management. This managerial perspective acknowledges that an organization’s success is strongly related to its ability to function effectively and efficiently within a larger network of allied businesses. Managers must understand how to integrate business functions within their organizations, as well as across the other organizations within their value chain. Integrated value chain management rests upon a foundation including supply chain management, information management, resource management, and customer relationship management. In addition, students will pursue concentrations and careers in a variety of areas, including finance, logistics, marketing, operations management, and a secondary concentration in innovation and entrepreneurship.

**Admission**

Applications are accepted for fall semester only. The application deadline for fall semester is February 1. Applications by United States citizens and permanent residents received after February 1 will be considered as space allows.

To be considered for admission, the applicant’s file must be complete. A completed file includes the Application for Graduate Admission, transcripts of prior college work, an MBA program application, two completed applicant recommendation forms, and the Graduate Management Admission Test (GMAT) score report. Additional information is required by Graduate Admissions for international students.

For admission to the MBA program, consideration is given to (1) an applicant’s academic record with particular attention to the last two years of undergraduate work and previous graduate studies; (2) scores on the GMAT and the Test of English as a Foreign Language (TOEFL) for those whose native language is not English; (3) quality of work experience and other activities that demonstrate potential for leadership; and (4) recommendations from professors and work supervisors. The admission decision is based on all factors that make up the total application; therefore, there is no automatic cut-off for either grade point averages or GMAT scores. However, admission preference will be given to applicants with full-time work experience after obtaining the undergraduate degree.

**Prerequisites**

There are no specific course prerequisites for admission, however, we recommend that non-business undergraduates take an introductory course in accounting, finance or statistics prior to entry. Undergraduate courses and work experience should demonstrate ability with both qualitative and quantitative work.

**Requirements**

**MBA Core**

The MBA core (29 hours) consists of a 3-hour foundations course taken during the three weeks prior to the beginning of fall semester, a 15-hour core course and a 1-hour career development course taken in the first semester (fall 1), a 9-hour core course taken in the second semester (spring 1), and a 1-hour capstone in the third semester (fall 2). The topics introduced within these courses follow three major themes. The first theme covers what every manager needs to know, and includes such functional topics as finance, economics, strategy, decision tools, global business, environmental analysis, and leadership skills development. The second theme focuses on functions involved in the flows of product, information, and finances within a globally integrated value chain, to include, but not limited to, operations management, logistics management, demand management, customer relationship management, supplier management, and resource management. The third theme involves integrating the content of the other two themes using information technology. Throughout all three themes, significant emphasis is placed on learning the topics in an integrated fashion. Students will understand how various business functions are integrated within an organization, as well as how integration should occur across organizations within the context of a value chain.

Students in the first-year core undertake active learning within a team-based environment. Many core requirements are experiential exercises in which self-discovery within a team setting is an important element of the learning process. Individualized support is provided for developing both written and oral communication skills.

**Concentration and Electives**

A concentration area may be indicated on the MBA Program Application or this declaration may be deferred until after matriculation. In any event, selection should be made after the first semester and must be made after completion of the first year. Requests for changes in concentration areas must be submitted for approval to the MBA Program Office.

Among the 15 hours in the concentration/electives block, 9 hours must be taken in one of the primary concentrations. For the specific courses required in primary concentration areas, see the appropriate department.

Finance, logistics, marketing, and operations management represent primary concentrations. A secondary concentration, innovation and entrepreneurship, can be taken in conjunction with one of the primary concentrations.

The first course in each concentration is designed to provide a foundation upon which the concentration can be built. These courses will be delivered in the latter part of the spring semester of the first year after the spring core course has been completed. They are intended to prepare students for their summer internships. However, these courses should not be thought of as simply the first 3 hours in a 9-hour elective. Rather, these courses are self-contained, intensive introductions to a specialty area of business. Students choose two of these courses in the spring semester, which will permit them flexibility for choosing concentrations in the second year of the program. Two additional courses in the concentration area will be taken in the second fall semester to meet the 9-hour requirement for a concentration.

Elective courses may be chosen from any 500-level courses in the College of Business Administration. Courses outside the college as well as courses listed in The Graduate Catalog numbered below 500 may be included as an elective only with written prior permission via formal petition to the MBA Program Office.
Secondary Concentration - Innovation and Entrepreneurship

Innovation and entrepreneurship is a secondary concentration (9 hours) that must be taken in conjunction with one of the other MBA concentrations. The secondary concentration makes the MBA concentration/electives block 18 total credit hours. It provides the skills to launch a new business and to function successfully within an established corporation that employs entrepreneurial management strategies. It teaches how to assess entrepreneurial opportunities, apply strategic consultative thinking to problem solving, assess the commercial potential of an idea or innovation, develop strategic, business and financial plans, develop effective presentations, and serve as an effective member of an entrepreneurial/innovation team. Minimum course requirements are Business Administration 520, plus two from Business Administration 595, Finance 551, Management 551.

Transfer Credits

Graduate-level courses taken at other institutions accredited by the Association to Advance Collegiate Schools of Business that otherwise conform to university policy may be credited toward MBA degree requirements within the following limits.

- Concentration area – 6 hours (provided at least 6 hours of work at this institution are included in the concentration area).
- Elective Area – 3 hours.

Because of the fully integrated nature of the first-year curriculum, no credit hours are transferred into this core curriculum. The maximum number of hours that may be transferred to elective and concentration areas is 6 semester hours. Transfer credit will be considered upon formal petition to the Dean of the MBA Program and must meet all requirements of the Graduate Council.

Other Requirements

The Application for Admission to Candidacy must be approved by three faculty members in the student’s area of concentration and the Associate Dean for Academic Programs. It should be submitted to the Office of the University Registrar at least one full semester prior to the date the degree is conferred. (Admission to candidacy for the MBA degree must be submitted in the spring semester for graduation in the following fall semester.) To qualify for the degree, the student must achieve a B average (3.0) or above in MBA core courses required in his/her program, a B average or higher in courses comprising the concentration area, and a B average or higher in the overall program.

EXECUTIVE MBA PROGRAMS

Each of the four programs of the executive track is designed to serve the needs of a different student group.

The programs share a common course structure of 36 credit hours of classroom learning (Business Administration 551, 552, 553) and 9 credit hours of projects applied within the student’s business organization (Business Administration 561, 562 and 563). Students carry a full, 15 credit-hour load each semester. In each program, all participants begin and complete the program together.

The courses are functionally integrated, and the broad curriculum objectives are similar in each of the executive track programs. All are oriented toward applied learning and are highly interactive, making extensive use of experiential learning techniques. Emphasis and depth of subject material within the curriculum varies somewhat from program to program depending on the intended student group. All programs result in the same Master of Business Administration degree as the full-time MBA.

Admission

Primary consideration is given to the applicant’s professional achievements and recommendations from the applicant’s organization. Applicants must meet the minimum requirements of the Graduate Council and submit transcripts of all undergraduate and graduate work. Applicants may need to take the Graduate Management Admission Test (GMAT) (see specific program descriptions). No cut-off score exists for either grade point averages or GMAT scores; however, admission is competitive, and applicants will be evaluated on their ability to operate on a par with other high achieving participants. Students whose native language is not English must take the Test of English as a Foreign Language (TOEFL) unless they are United States citizens or have earned a degree from an accredited United States college or university within the past two years. A minimum TOEFL score of 213 on the computer-based test, 550 on the paper test, or 80 on the Internet-based Test is required for admission to graduate study.

Prerequisites

Although there are no specific course prerequisites for admission, undergraduate studies and professional experience should demonstrate ability with both qualitative and quantitative work.

Transfer Credit

Because of the integrated nature of the executive track curriculum, no credit hours may be transferred as substitutes for program curriculum.

Other Requirements

Other requirements are the same as those for the full-time MBA program.

Aerospace Executive MBA Program

The aerospace executive MBA is provided for a national audience of managers from defense and commercial aerospace organizations. The students for whom this program is designed have five to ten years of work experience and are currently employed in the aerospace sector. The emphasis in this program is providing a solid grounding in the broad range of business functions. However, much of this coverage will be delivered within the context of the aerospace industry. Beyond a basic grounding in business fundamentals, this program will offer advanced concepts especially relevant to managing the complex value streams that produce today’s most advanced aircraft. Advanced coverage and emphasis will be given to value stream integration, lean manufacturing, and industrial statistics in particular. This mix of topical coverage is ideal for engineers and others with technical backgrounds that are transitioning into program management where business and leadership skills are critical.

The program starts each fall semester and is completed in three consecutive semesters spread over twelve months. Classes are held during six residency periods, lasting from eight to eleven days each. Between residency periods, formal coursework continues with bi-weekly distance learning through live, Internet cyber classes. Additional graded work includes a number of large-scale projects completed under faculty supervision, resulting in significant written reports and oral presentations.

Applications to this program are accepted for a fall entry only. The early application deadline is May 15, and the final application deadline is August 1, each year. Scores from either the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) are required as part of a complete application. The program will not be offered in those years in which the enrollment is not sufficient.

Physician Executive MBA Program

The physician executive MBA is provided for an international audience of physicians. The students for whom this program is designed have an MD, MBBS or DO degree with five or more years of work experience. The curriculum objectives are the same as those for the executive MBA, but in the physician executive MBA, many of the functional skills are taught in the con-
text of the health care industry with specialized content related to the health care environment. The physician executive MBA is the right choice for physicians who want to have a voice in the health care industry, in their own careers, and are seeking a program that allows them to continue their practice while earning their MBA degree.

The physician executive MBA is three consecutive semesters completed in twelve months. The class meets in Knoxville for eight-day residence periods in January, April, August and December. Between residence periods, live distance learning classes are held each Saturday morning, and there are asynchronous internet assignments each week.

Applications are accepted for January entry only. Applications are accepted throughout the year. The final application deadline is November 1. Applicants to the physician executive MBA are not required to take the GMAT test.

Additional information on the executive MBA can be found at www.pemba.utk.edu.

Professional MBA Program

The weekend professional MBA is provided for fully-employed professionals within commuting distance of the University of Tennessee, Knoxville. The group of students for whom this program is designed has approximately five years of work experience. The emphasis in this program is to provide a good grounding in the quantitative and qualitative tools of various business functions and a good basis in strategic thinking. Learning is expanded through applying these tools within the student’s own organization through a structured project each semester. The professional MBA is the right choice for individuals who wish to enhance their position within their organization by broadening their business knowledge beyond the functional area in which they are currently employed.

The professional program is three consecutive semesters completed in sixteen months. Classes meet all day on Saturdays and via live, distance learning classes on Tuesday evenings. The program begins in August with an intensive week of classes, then continues with weekend classes. The final fall semester also includes an intensive week of courses in addition to weekend classes. Graduation is in December.

Applications are accepted for fall semester only. The application priority deadline is April 10.

Additional information on the professional MBA can be found at http://promba.utk.edu.

Senior Executive MBA Program

The senior executive MBA is provided for a national audience of managers holding middle- and upper-level positions in organizations that support their attainment of an MBA degree. The students for whom this program is designed have at least ten years of work experience and are currently in management positions. Typical students bring a greater knowledge of business fundamentals than is true of other MBA programs. The senior executive MBA places considerable emphasis on global business and on individual skills of leadership. The program also has a heavy emphasis on strategic thinking and leading-edge management concepts. The senior executive MBA is the right choice for individuals who are in positions of broad responsibility or who have been designated to fulfill such roles within their organizations in the future.

The senior executive MBA is three consecutive semesters completed in twelve months. The class meets in Knoxville for 11-day residence periods in alternate months starting in January and ending in December. The May residence period is a global business seminar of two weeks and is held in South America, Asia or Europe. Off-campus work includes distance learning classes and requires substantial and regular contact with faculty and other participants. The project work in the senior executive MBA is a large-scale management project running throughout the year. Students work with managers in their own organizations to choose a project of significant scale and scope. Each project has a faculty advisor.

Applications are accepted for January entry only. The early application deadline is June 1, and the final application deadline is September 15. The GMAT may be waived depending on work experience. Students will receive materials for study in mid-November preceding the January start date.

Additional information on the executive MBA can be found at www.emba.utk.edu.

Dual JD-MBA Program

The College of Business Administration and the College of Law offer a coordinated dual program leading to the conferment of both the Doctor of Jurisprudence and the Master of Business Administration. The dual program saves the student approximately 15 hours (one semester) over the time that would be required to earn both degrees independently.

The establishment of the dual program recognizes the increasingly complex body of knowledge necessary to the creative conduct of business and business-related law practice, the complementary nature of many aspects of the graduate programs of the College of Law and the College of Business Administration, and the intellectual benefits inherent in the concurrent study of both business and business-related law. The program is designed to accommodate the interests of students who (a) contemplate a career in public service and want to acquire the skills and perspective of the lawyer and the business-oriented manager, (b) contemplate a career in business management and want to acquire the skills and perspective of a lawyer, or (c) contemplate a career as a lawyer specializing in business-related law and want to acquire the skills and perspective of the business-oriented manager.

Admission

Applicants for the JD-MBA program must make separate application to, and be competitively and independently accepted by, the College of Law for the JD, Graduate and International Admissions and College of Business Administration for the MBA degree, and by the Dual Program Committee.

Students who have been accepted by both colleges may apply for approval to pursue the dual program anytime prior to, or after, matriculation in either or both colleges. Such approval will be granted, provided that dual program studies are started prior to entry into the last twenty-eight semester hours of JD coursework and prior to the third semester of the MBA program. Students interested in entering the dual degree program should submit a letter of application to the Dual Program Committee. Upon receipt of the application, the Dual Program Committee will determine eligibility and assign students to advisors who will be responsible for course approval and supervision of the student’s progress through the dual program.

Requirements

A dual program candidate must satisfy the graduation requirements of each college. Students withdrawing from the dual program before completion of both degrees will not receive credit toward graduation from either college for courses in the other college, except as such courses qualify for credit without regard to the dual program.

The College of Law will award up to 9 semester hours of credit toward the JD for acceptable performance in approved graduate-level courses offered by the College of Business Administration. The College of Business Administration will award up to 6 semester hours of credit toward the MBA for acceptable performance in approved courses offered in the College of Law. The approval of courses is the responsibility of the student’s assigned advisors.

Students may begin their studies in either the JD or the MBA program, but may not enroll in MBA coursework while completing the first year of the law curriculum and may not enroll in JD
coursework while completing the first year of the business curriculum. During the first year in the JD program, students register through the College of Law. During the first year in the MBA program, students register as graduate students. After the first two years, any term in which students take law courses or a mixture of law and graduate courses, they are classified and registered as law students. If taking only graduate courses, they are classified and registered as graduate students.

Approved Dual Credit

MBA courses in which the student has earned a B grade or higher are to be counted toward the JD program must include 9 semester hours approved by the College of Law. The 6 hours of law courses in which the student has earned a 2.3 or C+ grade or higher and are to be counted toward the MBA must be selected from those approved by the director of the MBA Program.

Dual MS–MBA Program (Engineering)

The College of Business Administration and the College of Engineering offer an integrated program leading to the conferral of the Master of Business Administration degree with a major in business administration (concentration in operations management) and the Master of Science degree in one of the following engineering majors – aerospace, biomedical, chemical, computer, electrical, engineering science, industrial, materials science, mechanical, and nuclear engineering. (Refer to each major for specific information and requirements).

The establishment of the dual program addresses the critical need for personnel trained in both engineering and management who can integrate an increasingly complex body of knowledge for rapid introduction of new products to the marketplace. The objective of the dual degree program is to prepare graduates to take a leading management role in companies that must react quickly to a dynamic market where forces of competition require rapid changes via short cycles in design, manufacturing, and product development. Since the development of a commercial product is a central part of the program, this program is also for students who wish to become an entrepreneur.

Admission

Applications are accepted for fall semester only. Applicants for the MS-MBA program must make separate application to, and be competitively and independently accepted by, Graduate and International Admissions for the Master of Business Administration and the Master of Science in one of the following engineering majors – aerospace, biomedical, chemical, computer, electrical, engineering science, industrial, materials science, mechanical, or nuclear engineering, and by the Dual Program Committee.

Students will initially apply for the MBA program, indicating on their application the intent to pursue the dual MS-MBA program and the appropriate engineering major (refer to the MBA program for separate instructions). Students accepted for both the MBA and one of the engineering degree programs will be assigned to Dual Program Committee advisors, who will be responsible for course approval and supervision of the students’ progress through the dual program.

Applications by United States citizens and permanent residents accepted after the MBA application deadline (February 1) will be considered as space allows. Additional information is required and different application dates are established by Graduate and International Admissions for international students.

Requirements

All engineering students enrolled in the dual program must complete common coursework designed to provide them with an integrated, multidisciplinary teamwork experience. The MBA curriculum consists of 30 hours of common coursework in the College of Business Administration and 12 hours of common coursework in the College of Engineering. Engineering common coursework includes a culminating 3-hour integrated project course requiring a comprehensive report, and a final examination as required by the Dual Program Committee, to be taken during the first session of summer following the second year.

During the second year, dual degree candidates will take courses in their engineering major. The coursework for each option is designed to provide students with a concentration in their major and advanced skills to accomplish their teamwork assignments.

Dual degree candidates enrolled in engineering science option are required to take 18 hours of graduate level engineering courses during the second year of the program. This option requires a coursework plan, approved by the Dual Program Committee, including a concentration such that the student can accomplish his/her teamwork assignments.

DUAL MS–MBA

<table>
<thead>
<tr>
<th>August – First Year</th>
<th>Hours Credit</th>
</tr>
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<tbody>
<tr>
<td>Business Administration 511 (MBA Core I)</td>
<td>3</td>
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<tr>
<td>Fall – First Year</td>
<td></td>
</tr>
<tr>
<td>Business Administration 512 (MBA Core II)</td>
<td>15</td>
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<td>*504 Product Development Process</td>
<td>1</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>Business Administration 513 (MBA Core III)</td>
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<tr>
<td>*506 Product Selection and Evaluation</td>
<td>2</td>
</tr>
<tr>
<td>*508 Integrated Product, Process, and Manufacturing System Design</td>
<td>3</td>
</tr>
<tr>
<td>Summer</td>
<td></td>
</tr>
<tr>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>*509 Multidisciplinary Project</td>
<td>1</td>
</tr>
<tr>
<td>Fall – Second Year</td>
<td>1</td>
</tr>
<tr>
<td>*509 Multidisciplinary Project</td>
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<td>MBA Hub Course Elective</td>
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<td>*509 Multidisciplinary Project</td>
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<tr>
<td>Engineering Major</td>
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<tr>
<td>Summer (first session)</td>
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<tr>
<td>*594 Culminating Integrated Project Report</td>
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<td>Total</td>
<td>60</td>
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</table>

* See showcases in the College of Engineering for course disciplines.

For additional requirements for the Master of Science degree with majors in aerospace engineering, biomedical engineering, chemical engineering, computer engineering, electrical engineering, engineering science, industrial engineering, materials science and engineering, mechanical engineering, or nuclear engineering, refer to program descriptions for those majors.

The dual degree candidate must satisfy the curriculum and graduation requirements of the engineering major being pursued and the College of Business Administration.

Students withdrawing from the dual degree program before completing both degrees will not receive credit toward graduation in either degree program for courses taken in the other degree program, except as such courses qualify for credit without regard to the dual degree program. The MS and the MBA degrees will be awarded upon successful completion of the requirements of the dual program.

Approval Dual Credit

A maximum of 15 hours of the common program courses completed in the College of Engineering may be counted toward the MBA degree program.

Dual MS–MBA Program (Sport Management)

The College Business Administration and the College of Education, Health, and Human Sciences offer an integrated program leading to the conferral of the Master of Science with a major in sport studies (concentration in sport management) and the Master of Business Administration.

Increasingly, sports and sports-related companies are represented by significant business enterprises. Success in these en-
terprises requires the application of business fundamentals, analytical techniques, and management skills within the specific context of the sports industry. The objective of the dual degree program is to train individuals in sport management and business management to integrate both sport and management and to prepare them to undertake leadership roles in this growing, dynamic, and competitive industry.

**Admission**

Applications are accepted for fall semester only. Applicants for the MS-MBA program must make separate application to, and be competitively and independently accepted by, Graduate and International Admissions for the Master of Business Administration program and for the Master of Science sport studies major (sport management concentration).

Students will initially apply for the MBA program, indicating on their application the intent to pursue the dual MS-MBA program. Students accepted for both the MBA and MS programs will be assigned to Dual Program Committee advisors, who will be responsible for course approval and supervision of the students’ progress through the dual program.

Applications by U.S. citizens and permanent residents received after the application deadline (February 1) will be considered as space allows. Additional information is required and different application dates are established by Graduate and International Admissions for international students.

**Requirements**

The MBA curriculum consists of 31 hours of common coursework in the College of Business Administration. Dual degree candidates enrolled in sport management are required to take 30 hours of graduate level Sport Management courses and internship.

The dual degree candidate must satisfy the curriculum and graduation requirements of the sport management concentration and the College of Business Administration. Students withdrawing from the dual degree program before completing both degrees will not receive credit toward graduation in either degree program for courses taken in the other degree program, except as such courses qualify for credit without regard to the dual degree program.

The MBA and MS degrees will be awarded upon successful completion of the requirements of the dual program.

### DUAL MS-MBA

<table>
<thead>
<tr>
<th>August – First Year</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration 511 (MBA Core I)</td>
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<tr>
<td>Fall – First Year</td>
<td></td>
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<tr>
<td>Business Administration 501 (MBA Career Development)</td>
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<tr>
<td>Business Administration 512 (MBA Core II)</td>
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<tr>
<td>Spring</td>
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<tr>
<td>Business Administration 513 (MBA Core III)</td>
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<tr>
<td>MBA Elective (Recommend: Marketing 520)</td>
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<td>3</td>
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<tr>
<td>Sport Management 554 (Readings in Sport Management)</td>
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<tr>
<td>Summer</td>
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<tr>
<td>Sport Management 595 (Sport Management Internship)</td>
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<tr>
<td>Sport Management 501 (Sport Management Special Projects)</td>
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<td>3</td>
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<tr>
<td>Fall – Second Year</td>
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<tr>
<td>Sport Management 544 (Leadership Theories in Sport)</td>
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<td>3</td>
</tr>
<tr>
<td>Sport Management 511 (Administration and Supervision in Sport)</td>
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<td>3</td>
</tr>
<tr>
<td>Sport Management 532 (Research Techniques in Sport)</td>
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<td>3</td>
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<tr>
<td>Spring – Second Year</td>
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<td></td>
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<tr>
<td>Sport Management 530 (Sport and Media Issues)</td>
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<tr>
<td>Sport Management 512 (Legal Concepts in Sport)</td>
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<td>3</td>
</tr>
<tr>
<td>Sport Management 535 (Social and Ethical Issues in Sport)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
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<td>61</td>
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</tbody>
</table>

### DOCTOR OF PHILOSOPHY

#### BUSINESS ADMINISTRATION MAJOR

The primary objective of the PhD with a major in business administration is to prepare a select number of qualified students for careers in university-level teaching and research and for responsible positions in business and government.

**Admission**

Students seeking a PhD must be recommended for acceptance by the College of Business Administration to the Office of Graduate and International Admissions. Actual admission is based on the applicant's overall standing compared with other applicants and with the number of vacancies in each department. The Graduate Council requires the Graduate and International Admissions Application, transcripts from all previous college work, and additional information from international students. The college requires the PhD application, scores from the GMAT, and four written recommendations. All materials should be received by the College of Business Administration no later than March 1. Late applications are considered only if space is available.

Under exceptional circumstances, a student may be considered for acceptance into the PhD program without having a master's degree. An applicant in this situation should have an outstanding undergraduate background and should represent a deep and sincere commitment to the pursuit of a career in research and instruction.

**Overview**

The PhD normally requires four years of intensive study and research beyond the master’s degree. Typically, the first two years of a student's program consist of coursework, writing, and research. The third and fourth years require completion of courses, the comprehensive exam, and completion of the dissertation. It is emphasized that the PhD program of study is structured for full-time students only. Upon acceptance of a student by a particular departmental faculty, the student is expected to remain in residence until the dissertation has been completed and all requirements are met for completion of the PhD.

Since the program focuses on the development of competent scholars, heavy emphasis is placed on both teaching and research skills. As part of the doctoral program, each student is required to serve as a teaching assistant to an undergraduate business class or as a research assistant to a senior faculty member. Students with strong teaching skills may be assigned their own classes. Typically, the College of Business Administration offers financial support for doctoral students during their tenure in the program.

The PhD program is highly flexible, offering a wide array of concentrations and cognates. Moreover, heavy emphasis is placed on individualized instruction and close student-faculty interaction. Instruction takes the form of regular classes, doctoral seminars, and independent study and research. Students are also encouraged to attend lectures and discussions by visiting scholars throughout the year.

The six concentrations offered in the PhD program are accounting, finance, human resource development, logistics, marketing, and statistics.

More detailed information concerning these specific areas is available by writing directly to each department or by accessing the College of Business Administration Web page.

**Requirements**

Doctoral students must file a program of study that has been approved by their doctoral committee within one year of completing their first year of doctoral studies. This committee is nominated by the department chairperson in a student’s intended area of concentration, subject to the Graduate Council’s policies and procedures.
Students must complete at least three years of full-time coursework beyond the baccalaureate degree, with two years of residence on the Knoxville campus. Students are required to have a sound and broad base on which to build their PhD coursework. The departmental doctoral advisor will work with the student to determine what, if any, courses need to be completed. All such work is subject to approval by the temporary doctoral advisory committee and the Dean of the MBA Program. Specific concentrations may have prerequisites.

Research Tools. A minimum of 9 semester hours of graduate research methods must be completed. At least 6 semester hours in statistics courses beyond Statistics 531 are required. The remaining 3 semester hours may be completed in additional statistics courses (not to include Statistics 531) or in other areas such as research methodology, management science, computer science, econometrics, and psychometrics.

Concentrations – accounting, finance, human resource development, logistics, marketing, and statistics. The concentration is the focal point of the PhD program. Students are expected to master the literature and research techniques in the concentration area and to do quality research as evidenced by the preparation of an acceptable dissertation. A minimum of 12 semester hours of coursework is required, including at least 9 hours of doctoral seminars. Graduate work taken in the concentration at other institutions is considered by the temporary doctoral advisory committee in approving the specific coursework required. See the appropriate departments for specific course requirements.

A minimum of 9 semester hours of graduate coursework is required in an area outside, but complementary to, the concentration. The student may choose the cognate from one of the following – one of the six concentration areas listed above, economics or a related area in another school or college of the university. Hybrid cognates combining courses from multiple disciplines are permitted with the approval of the doctoral advisor and the temporary doctoral advisory committee.

Comprehensive Examinations

Comprehensive written examinations over the concentration area are required of each person seeking candidacy for the PhD. This examination is administered in two sessions of approximately 4 hours each. Students qualify in the cognate area by completing a one-session, 4-hour examination or an equivalent jointly approved by the student’s major professor and the student’s advisor in the cognate area. Comprehensive examinations are generally offered during the fall and spring terms. Comprehensive examinations must be taken within five years of matriculation.

When either the concentration or cognate area examination is passed, the remaining examination must be passed within the next thirteen months.

Doctoral Committee

A doctoral student is advised to give serious attention early in the program to the composition of his/her doctoral committee. In accordance with Graduate Council policy, the student and the major professor identify a doctoral committee composed of at least four faculty members, three of whom, including the chair, must be approved by the Graduate Council to direct doctoral research. When the doctoral committee has been formed, the temporary doctoral advisory committee ceases to exist.

Admission to Candidacy

Students may apply for admission to candidacy for the PhD after maintaining at least a B average in coursework, successful completion of comprehensive examinations, and acceptance of a research proposal for the dissertation by the student’s doctoral committee.

Admission to candidacy must be approved at least one full semester prior to the date the degree is conferred. (Admission in the fall permits graduation in the following spring semester.) Application for admission to candidacy must include a listing of all courses taken in each of the fields required for the degree (business functional areas, basic disciplines, concentration and cognate area). Graduate courses accepted from other institutions must be included. Under “Other Requirements,” the date of acceptance of the research proposal by the doctoral committee should be indicated. The application must be approved by the student’s doctoral committee and the Associate Dean before submission to the Office of the University Registrar.

Dissertation (24 hours minimum)

The student must complete a dissertation embodying the results of original research demonstrating the ability to do scholarly writing. The dissertation is supervised by the candidate’s doctoral committee, which must certify its completion and acceptability after oral defense of the candidate’s research effort. The dissertation normally must be completed within three years of the student’s advancement to candidacy.
MASTER OF ACCOUNTANCY
ACCOUNTING MAJOR

The objective of the Master of Accountancy program is to prepare individuals who have a high level of ability and motivation for successful careers in professional accounting and industry. This nationally recognized program uses active learning methods to engage students in global business planning, practices, and strategies. The program offers students the breadth of a broad business perspective and exposure to cutting-edge management issues. It also provides students with the technical depth required for a career that begins in auditing or taxation. Coursework includes a particular focus on the development of analytical skills, communication skills (both oral and written), and research skills.

The Master of Accountancy program is a full-time, weekday program. The nature of the program precludes students from simultaneously working full-time outside of classes. UT’s accounting undergraduate and graduate programs are accredited by AACSB International and are among the first programs in the nation to receive this accreditation.

Admission

Students may begin graduate coursework for the MAcc only in fall semester. The application deadline is March 1 (February 1 for international students) and applications received after that date will be considered as space allows.

The program is designed both for students who have completed an accredited baccalaureate degree program with a major in accounting and others. Students with an accounting degree from an accredited baccalaureate degree program normally meet all prerequisites for the program. Students with outstanding undergraduate records in areas other than accounting may enter the MAcc program, which starts in the fall semester by completing coursework in introductory accounting and economics, and the following prerequisite undergraduate courses – Accounting 311, 321, 411, 414, and 431; Information Management 341; and Finance 301, or their equivalents as approved by the Director of the MAcc program. All prerequisites must be completed prior to the start of graduate coursework in fall semester.

In addition to the general admission requirements, MAcc applicants are required to take the Graduate Management Admission Test (GMAT) and submit information on forms provided by the Department of Accounting and Information Management. Applicants whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL).

For admission to the MAcc program, consideration is given to:
- Applicant’s academic record with particular attention to the last two years of undergraduate work.
- Scores on the GMAT, and TOEFL for those whose native language is not English.
- Internships and/or work experience and other activities that demonstrate potential for leadership.
- Recommendations from professors and/or work supervisors.

The admission decision is based on all factors that make up the total application; therefore, there is no automatic cutoff for either grade point average or GMAT scores.

Students will be expected to have a laptop computer for use in the classroom and for assignments. Additional details concerning the hardware and software configurations required are posted on the departmental Web site.

Requirements

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.

Students take 12 hours each semester and 6 hours in the first summer session. Program requirements are:
- Business Core (12 hours) Business Administration 521, 522, 523, 524.
- Concentration (18 hours).

Two concentrations are available.

Audit and Controls
Accounting 507, 518, 519, 531; Information Management 541, 543

Taxation
Accounting 531, 532, 533, 534, 539, and an additional course.

Students may further modify their programs with approval of the Director of the MAcc program.

Transfer Credits

A maximum of 6 semester hours taken at other AACSB accredited institutions that otherwise conform to the transfer policy of the Graduate Council may be credited toward MAcc requirements.

Other Requirements

To qualify for the degree, a student must maintain a B average (3.0) or above in the 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 (Accounting 519 for the audit and controls concentration and Accounting 539 for the taxation concentration).

DOCTOR OF PHILOSOPHY
BUSINESS ADMINISTRATION MAJOR

ACCOUNTING CONCENTRATION

This degree provides a research-oriented terminal qualification 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 accounting 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 the PhD accounting program advisor.

DEPARTMENT OF ECONOMICS

http://econ.bus.utk.edu
Robert A. Bohm, Head
M.N. Murray, Graduate Liaison

Professors
Bohm, R.A., PhD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Washington (St. Louis)
Chang, H.S., PhD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Vanderbilt
Clark, D.P. (Beaman Professor), PhD . . . . . . . . . . . . . . . .Ohio State
Fox, W.F. (William B. Stokely Distinguished Professor of Business), PhD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Ohio State
Murray, M.N. (Douglas A. and Brenda Horne Professor), PhD . . . .Syracuse

Associate Professor
Bruce, D., PhD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Syracuse
Cherry, T.L., PhD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Wyoming
Gauger, J.A., PhD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Iowa State
Neilson, W.S. (J. Fred Holly Chair of Excellence), PhD . . . . . . .California (San Diego)
Santore, R., PhD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Ohio State
Assistant Professors
Chakraborty, A., PhD ................................. Oregon
Evans, M., PhD ................................. Colorado
Gilpatric, S., PhD ................................. Texas A&M
Mohns, M., PhD ................................. York (Canada)
Munkin, M., PhD ................................. Indiana
Vossler, C., PhD ................................. Cornell

Research Professor
McKee, M., PhD ................................. Carlton (Canada)

Research Associate Professor
Burton, M., PhD ................................. Tennessee

Lecturers
Baker, K., PhD ................................. New Mexico
Bueckman, D., PhD ................................. Tennessee
Das, S., PhD ................................. Vanderbilt
Kauffman, C., PhD ................................. Tennessee
Schuler, G., PhD ................................. Houston

Emeriti Faculty
Davidson, P. (J. Fred Holly Chair of Excellence Emeritus), PhD ................................. Pennsylvania
Herzog, Jr., H.W., PhD ................................. Maryland
Moore, J.R. (Alumni Distinguished Service Professor Emeritus), PhD ................................. Cornell
Russell, M., PhD ................................. Oklahoma
Spiva, Jr., G.A., PhD ................................. Texas

Adjunct Faculty
Bjornstad, David, PhD ................................. Syracuse
Curlee, T.R., PhD ................................. Purdue
D’Urso, V.T., PhD ................................. Massachusetts Institute of Technology
Schrader, W.R., PhD ................................. Tennessee
Shelton, R.B., PhD ................................. Southern Illinois
Vogt, D.P., PhD ................................. Syracuse

DEGREES
Economics
MA, PhD

The Department of Economics offers graduate programs leading to the MA and PhD. The MA may be completed by either a thesis or non-thesis option, while the PhD requires successful completion of a dissertation. Applicants to these programs should contact the Director of Graduate Studies, Department of Economics, for further information.

Academic Standards
A graduate student 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 graduate 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 established by the degree program for full-time students and the next two semesters’ coursework as established by the degree program for part-time students.

Student’s Right to Petition
Graduate students in good academic standing have the right to petition the department for modification of departmental degree requirements and redress of grievances. Petitions must be in writing and addressed to the Director of Graduate Studies.

MASTER OF ARTS
ECONOMICS MAJOR
Admission to the MA program is based on undergraduate academic performance and on scores from the general portion of the GRE. The student may choose either the thesis or non-thesis option.

Requirements
Non-Thesis Option
Thirty hours of coursework at the 400 level or above. Of these, at least 24 hours (at least 18 hours of which are in economics) must be at the 500 level or above. Of the minimum of 18 hours in economics at the 500 level or above, 12 hours must consist of 511, 512 and 513, 514, and the remaining 6 hours must be in one field of economics. Of the 30 hours, a maximum of 9 hours in courses approved by the department may be taken in fields other than economics. Students electing the non-thesis option are required to pass a final comprehensive examination.

Thesis Option
Thirty hours of coursework at the 400 level or above, including at least 24 hours at the 500 level or above, 6 hours of which may be thesis hours. Of the remaining 18 hours at the 500 level or above, at least 15 hours must be in economics and must include 511, 512, 513, and 514. A maximum of 6 hours may be in an area other than economics.

DOCTOR OF PHILOSOPHY
ECONOMICS MAJOR
Admission to the PhD program is based on promise of outstanding scholarship as demonstrated by previous academic performance, by scores achieved on the general portion of the GRE, and by recommendations.

Requirements
The program requires a minimum of 48 hours of coursework beyond the bachelor’s degree or 24 hours beyond the master’s degree, plus at least 24 hours of 600 Doctoral Research and Dissertation, and successful completion of the following.

Economic Theory
Microeconomic theory and macroeconomic theory by a qualifying exam taken not later than the beginning of the fourth semester of study.

Quantitative Methods
Completion of 581, 582 and 583 with grades of B or better, or by qualifying examination.

Other Requirements
Students failing a qualifying examination must retake the examination the next time offered. A qualifying examination may be taken a third time only with approval of the department. Failing a qualifying examination for a third time will result in dismissal from the doctoral program.

Students are required to demonstrate competence by comprehensive examination in at least two fields of specialization in economics. Students failing a comprehensive examination must retake the examination the next time offered. A comprehensive examination in a specific field may be taken a third time only with approval of the department.

Students are required to complete with a grade of B or better two elective courses in economics at the 500 level or above, outside the core subject areas and outside the fields of specialization.

Students are required to complete a doctoral dissertation and to defend it successfully before the faculty.

DEPARTMENT OF FINANCE
http://bus.utk.edu/finance
James W. Wansley, Head
Phillip R. Daves, Doctoral Program Advisor

Professors
Black, H.A. (James F. Smith, Jr. Professor), PhD ................................. Ohio State
Boehm, T.P. (AmSouth Scholar), PhD ................................. Washington (St. Louis)
DeGennaro, R.P. (SunTrust Professor), PhD ................................. Ohio State
Ehrhardt, M.C. (Paul and Beverly Castagna Professor in Investments), PhD ................................. Georgia Tech
Philippatos, G.C. (Distinguished Chaired Professor of Banking and Finance), PhD ................................. New York
Shrievs, R.E. (William Voigt Professor), PhD ................................. UCLA
Wachowicz, Jr., J.M. (AmSouth Scholar), PhD ................................. Illinois
Wansley, J.W. (Clayton Homes Chair of Excellence), PhD ................................. South Carolina
DOCTOR OF PHILOSOPHY
INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY MAJOR

Admission

Applicants for admission should request information and application forms from both the Office of Graduate and International Admissions, 218 Student Services Building; and the Director, Industrial and Organizational Psychology Program, 408 Stokely Management Center, The University of Tennessee, Knoxville, Tennessee 37996-0545.

Two separate applications must be completed. One Graduate Application for Admission (apply for major in industrial and organizational psychology) and one application for admission to the industrial and organizational psychology major. New students are admitted in fall semester only. Applications must be received by Graduate and International Admissions by February 1.

The master’s degree with a major in industrial and organizational psychology is generally not required of individuals pursuing a doctoral degree.

At least one year of college mathematics and one course in statistics are required. Ordinarily, an undergraduate grade point average of 3.7 or above is required with no evidence of special weakness in mathematics and physical sciences.

Test scores on each section of the general portion (verbal and quantitative) of the Graduate Record Examination (GRE) are required. Customarily, those students admitted to the program have performed at or above the 69-79th percentile on the general tests. (This corresponds to a raw score of approximately 600 on each of the tests.)

Requirements

The PhD with a major in industrial and organizational psychology can be completed with a minimum of 90 semester hours in the major. Students must be in residence full time for one year; must maintain an overall 3.0 grade point average with no more than one grade below B in the Industrial/Organizational Psychology, General Psychology, and Research Core; must complete an applied research project prior to beginning dissertation work; must pass a comprehensive examination; and must pass a final oral examination on their dissertation research.

Course Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>1Industrial/Organizational Psychology Core</td>
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</tr>
<tr>
<td>2Research Core</td>
<td>12</td>
</tr>
<tr>
<td>3General Psychology Core</td>
<td>9</td>
</tr>
<tr>
<td>4Industrial/Organizational Psychology Seminars</td>
<td>9</td>
</tr>
<tr>
<td>5Approved Electives</td>
<td>9</td>
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<tr>
<td>6Supervised Practicum, Internship, or Field Training (690)</td>
<td>15</td>
</tr>
<tr>
<td>7Ethics (635 or equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>8Dissertation (600)</td>
<td>24</td>
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<tr>
<td>Total 90</td>
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</table>

1 Industrial and Organizational Psychology 567, 568, and 569.
2 Statistics 537, 538, or equivalents 579, 679 or equivalent; Industrial and Organizational Psychology 605.
3 One course in each of the following areas – biological bases of behavior, cognitive bases of behavior, history, and systems of psychology.
4 600 level Industrial/Organizational Psychology courses, from a program committee approved list.
5 Courses supporting the student’s course of study.
DEPARTMENT OF MANAGEMENT

http://bus.utk.edu/mgt
Robert T. Ladd, Interim Head
E. Kate Atchley, Assistant Head

Professors
Ladd, R.T. (Associate Dean and William B. Stokely Professor of Business), PhD .................................................. Georgia
Miller, A. (Associate Dean and William B. Stokely Chair of Management), PhD .................................................. Washington
Rentisch, J.R., PhD ........................................................ Maryland
Rush, M.C., PhD ........................................................ Akron
Stahl, M.J. (William B. Stokely Distinguished Professor of Management), PhD .................................................. Rensselaer Polytechnic Institute
Woehr, D.J., PhD ......................................................... Georgia Tech

Associate Professors
Elenkov, D.S., PhD ........................................................... Massachusetts Institute of Technology
Kupritz, V.W., PhD ........................................................ Virginia Tech
Morris, M.L. (Stokely Faculty Scholar), PhD, CFLE .................................. Tennessee
Smith, A.D., PhD ........................................................... North Carolina

Assistant Professors
Bartley, S.J., PhD .......................................................... Tennessee
Lim, D.H., PhD .......................................................... Illinois
Pierce, R.H., PhD ........................................................ Ohio State

Lecturers
Anderson, J.C., MIM .................................................... Thunderbird
Atchley, E.K.P., PhD ...................................................... Tennessee
Hoffman, J.G., MBA .................................................... Notre Dame
Lyle, L.G., Ph.D ........................................................... Tennessee
Mackey, D.L., PhD ........................................................ Tennessee
Neubert, R.L., Ph.D ...................................................... Tennessee
Seat, J.E., Ph.D ............................................................. Tennessee
Swift, G.D., MBA .......................................................... Georgia State
Wood, K.C., MBA ........................................................ Wharton

MAJORS DEGREES
Business Administration PhD
Human Resource Development MS

The human resource development program integrates occupational education, training, career development, and organizational development. The curriculum goal of the program centers around producing organizational effectiveness through a guiding framework that focuses on developing human resource skills and understanding of organizational culture, systems and structures, and decision making; individual, group, organizational learning; high performance training; organizational change, communication processes; and analysis, action, measurement of economic outcomes. Human resource development required (core) courses and human resource development electives are offered in diverse formats enabling working professionals to obtain the master's or doctoral degree.

MASTER OF SCIENCE
HUMAN RESOURCE DEVELOPMENT MAJOR

The Master of Science degree with a major in human resource development provides a flexible graduate program for professionals wishing to pursue in-depth study within and across subject areas of human resources.

Admission

Applicants for admission should request information and application forms from both the Office of Graduate and International Admissions (218 Student Services Building) and the Human Resource Development Program (408 Stokely Management Center, The University of Tennessee, Knoxville, Tennessee 37996).

Applicants are to submit an application for admission to Graduate and International Admissions. Additionally, applicants are to submit an application, three letters of reference from individuals familiar with their potential for success in academic work, and a statement describing personal career objectives directly to the Human Resource Development Program. Applicants must hold a bachelor's degree from an accredited institution and present evidence of ability to do graduate work, including a GPA of 3.0 on a 4.0 scale for the last two years of undergraduate work. Any student below this level of academic quality must justify admission via other exceptional credentials. If the applicant has prior work experience in human resource development, a reference letter should be provided by the work supervisor. Applicants without an undergraduate degree in an area related to human resource development, previous human resource employment experience, or a statistical background may be required to complete additional coursework as part of their program. Recent Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores are required of all applicants. Deadline – new students are admitted in fall semester only. Applications must be received by the Graduate and International Admissions Office by February 1 and the Human Resource Development Program by March 1.

Requirements

The human resource development master's non-thesis program is 39 hours. All students must take the program core of 18 hours, consisting of Human Resource Development 510, 556, 557, 559, 561, and 563. In addition to the program core, all students must complete Management 521 and 6 hours of 400- and/or 500-level courses in human resource management. For the remaining 12 hours, students will select four out of the five following courses – Human Resource Development 511, 517, 518, 519, or 520.

DOCTOR OF PHILOSOPHY
BUSINESS ADMINISTRATION MAJOR
HUMAN RESOURCE DEVELOPMENT CONCENTRATION

Admission

Applicants for admission should request information and application forms from both the Office of Graduate and International Admissions, 218 Student Services Building, and the Human Resource Development Program, 408 Stokely Management Center, The University of Tennessee, Knoxville, Tennessee 37996.

Applicants are to submit an application for admission to Graduate and International Admissions. Additionally, applicants are to submit an application, three letters of reference from persons familiar with their potential for success in doctoral work, and a statement describing personal career objectives directly to the Human Resource Development Program. New students are admitted in fall semester only. Applications must be received by the Graduate and International Admissions Office by February 1 and the Human Resource Development Program by March 1.

Applicants must hold a master's degree from an accredited institution and present evidence of ability to do PhD work, including having maintained a graduate GPA of 3.3 or better, on a 4.0 scale. Applicants without a graduate degree in an area related to human resources may be required to complete additional coursework as part of their program. If the applicant has prior work experience in human resource development, human resource management, or a related occupational area, a reference letter should be provided by the work supervisor. Recent Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores are required of all applicants. Any person whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL).
Requirements
The Doctor of Philosophy degree with a major in business administration and a concentration in human resource development is for graduate students who seek careers in higher education or as managers/administrators of human resources. The curriculum, a minimum of 60 hours, is designed to enable students to achieve professional objectives, develop needed competencies, and gain desirable experiences and understanding of human resources. Students not possessing a master’s degree before acceptance to the program may be required to complete additional coursework before enrolling into any courses associated with the doctoral program. Students must be in residence full time for one year and must maintain an overall 3.0 grade point average with no more than one grade below B in the human resource development courses, research core, and business core. Students who did not complete a thesis in their master’s program must complete a pre-doctoral research project prior to beginning dissertation work. All students must pass a comprehensive examination and a final oral examination on their dissertation research. Detailed information regarding the PhD concentration program of study may be obtained from the program liaison. Course equivalencies and substitutions must be approved by the student’s doctoral committee and program liaison.

For the latest updates check the home page of the Human Resource Development Program through the College of Business Administration’s Web site.

Course Requirements

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<tr>
<th>Course Requirements</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>1Human Resource Development Core</td>
<td>6</td>
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<tr>
<td>2Human Resource Development Seminars</td>
<td>9</td>
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<tr>
<td>3Research Core</td>
<td>12</td>
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<tr>
<td>4Business Core</td>
<td>9</td>
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<tr>
<td>Dissertation</td>
<td>24</td>
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<td><strong>Total 60</strong></td>
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The master’s program requires three applicant recommendation forms and the GRE or GMAT, in addition to the Graduate Council’s requirements.

Requirements
A minimum of 48 semester hours of coursework taken for graduate credit (exclusive of thesis or dissertation) is required. Some of the hours may be the coursework from a master’s program, although a master’s is not a prerequisite for the doctorate. The candidate must complete a minimum of 24 hours at the University of Tennessee, Knoxville, at least 6 of which must be at the 600 level. Both of these requirements are exclusive of thesis or dissertation credits. Entering students who have completed graduate studies in applicable fields will be granted course credits for work that is equivalent to required courses in the program.

The program includes approximately 16 to 20 semester hours of coursework in the applied area.
Qualifying Examinations
The student must demonstrate mastery of probability theory and statistical inference (Statistics 563, 564) by passing a written qualifying examination.

Mastery of 12 to 14 semester hours in mathematics coursework must be demonstrated by passing a written qualifying examination. Topics normally include numerical analysis (either Mathematics 471, 472, 453, and 571, or 571-572) and real analysis (Mathematics 445-446). Other options may be approved. In exceptional circumstances, the faculty will consider waiving the mathematics and/or statistics qualifying examinations.

These requirements generally are completed by the end of the first year of the program.

There is no foreign language requirement.

Comprehensive Examination
Prior to admission to candidacy for the degree, and normally after completion of the second year of the program, the student must pass a written comprehensive examination covering the theory of deterministic and stochastic management science models. Topics included in this examination are determined on an individual basis. Students will be expected to demonstrate an integrative ability that goes beyond simple mastery of course content.

Research and Dissertation
The student must complete 24 hours of Management Science 600 (Doctoral Research and Dissertation), through which he/she is expected to make a significant contribution to the science. A final oral examination is conducted over the dissertation and such other segments of the program that the faculty committee deems appropriate. This effort, which is beyond the minimum 48 hours of coursework, normally is completed in the third year of the program.

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 graduate 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.

Prerequisites for Management Science Courses
The management science program is interdisciplinary and students in other degree programs are encouraged to enroll in management science courses. Course prerequisites are designed to indicate the level at which courses are taught. Interested students whose prior coursework does not match the prerequisites are encouraged to seek the instructor’s guidance and consent to enroll.

STATISTICS
MASTER OF SCIENCE
STATISTICS MAJOR
The Master of Science with a major in statistics provides students with the foundation in theory and practice required for careers in applied statistics. In addition to the education traditionally offered in such a program, the department offers a concentration in industrial statistics, which provides unique opportunities for experiences in practical applications of statistics. Through involvement in the University of Tennessee Practical Strategies for Process Improvement Institute and related programs, department faculty participates in a variety of consulting and research projects in industry. Students may supplement their classroom study with an industrial internship and participation in research projects dealing with industrial problems. Department faculty also collaborates with researchers from many academic disciplines. Statistics graduate students may gain consulting experience by working with faculty involved in these consulting activities. All students are encouraged to participate in supervised internship or consulting activities as part of their graduate program.

Individuals with undergraduate or graduate degrees in other disciplines are encouraged to enter the program. The candidate’s mathematical background should include differential and integral calculus of several variables. Individuals with limited mathematical background should seek departmental guidance regarding specific ways in which they may prepare themselves for the program by taking coursework as non-degree students. Requests for application forms and further information may be sent to the Director of Graduate Studies, Department of Statistics, Operations and Management Science, Stokely Management Center, The University of Tennessee, Knoxville, Tennessee 37996-0532 or fguess@utk.edu or http://stat.bus.utk.edu.

Admission
Applicants for statistics must submit results of the Graduate Record Examination (GRE) general portion, although GMAT exam scores may be substituted. Applicants for the statistics program must have completed at least two years of college-level mathematics, including the calculus of several variables and matrix algebra, and be proficient in a computer language. Applicants whose native language is other than English must submit results of the Test of English as a Foreign Language (TOEFL).

Requirements
A minimum of 33 hours must be completed for the master’s degree. Six hours in statistical methods, 6 hours in statistical theory and 1 hour in statistical computing are required of all students. Students must complete a minimum of 21 hours in approved statistics courses, exclusive of consulting, internship, independent study, or thesis.

Thesis or Independent Study
The thesis option for the master’s degree requires the student to complete 6 hours for the thesis. Alternatively, the non-thesis option requires a minimum of 3 hours for an independent study project.

Comprehensive Examination
Students must pass a two-part written comprehensive examination covering theory and methods. Upon failing either part of the examination, the student may retake it. The result of the second examination is final. For students writing a thesis, this examination must be passed before the thesis is defended.

INTERCOLLEGIATE GRADUATE STATISTICS PROGRAM
The Intercollegiate Graduate Statistics Program (IGSP) is a formal University of Tennessee, Knoxville, academic program established to enable students to earn either a minor or an MS in statistics simultaneously with a master’s or doctoral degree in another department. Approved coursework taken to meet doctoral requirements in the student’s home department may also be credited toward the MS in statistics. Similarly, approved coursework in statistics taken to meet the requirements for a master’s or doctoral degree in another department may also count toward the minor in statistics. The program is open to graduate students in all departments, which have an approved minor, and/or MS joint major curriculum offered through the program. The program is administered by an executive committee, consisting of college representatives from all colleges with approved programs, with advisory input from the program faculty.