

East Tennessee State University

2004 • 2005

GRADUATE CATALOG

East Tennessee State University

2004-2005 Graduate Catalog

CollegeSource

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Information Directory

East Tennessee State University Johnson City, Tennessee Zip Code 37614/Area Code 423

Colleges and Schools

General Inquiries, campus operator	439-1000	Arts and Sciences	439-5671
Graduate Admissions	439-4221	Business and Technology	439-5489
Admissions information	439-4221	Continuing Studies	439-8300
Registration and Records	439-4230	Education	439-7626
Registration, programs of study, degree requirements, academic regulations		Graduate Studies	439-4221
Student Affairs	439-4210	Medicine	439-6315
(Medical Insurance)		Nursing	439-7186
Comptroller	439-4212	Public and Allied Health	439-4243
Fee payments, checks			
Financial Aid	439-4300		
Housing and Residence Life	439-4446		
University Alumni	439-4218		
Continuing Studies	439-8300		
Parking Office	439-5650		
Career Placement and Internship Services	439-4441		
Cooperative Education	439-5388		
Veterans Affairs	439-6819		
Intercollegiate Athletics	439-4343		

Centers

ETSU at Kingsport	392-8000
Marshall T. Nave Center (Elizabethton)	547-4900
ETSU at Bristol	844-6300

Please Note:

Degree requirements for programs of study initiated under provisions of this bulletin shall remain in effect for six years for master's programs and 7 years for doctoral programs. Students not completing requirements within the six-year period may be required to meet subsequent criteria; it is further provided, however, that the six-year limitation may be extended for interruption by military service where enrollment is resumed immediately upon release from service.

The course offerings and requirements of ETSU are continually under examination and revision. This bulletin presents the offerings and requirements in effect at the time of publication, but is no guarantee that they will not be changed or revoked. However, adequate and reasonable notice will be given to students affected by any changes. This bulletin is not intended to state contractual terms and does not constitute a contract between the student and East Tennessee State University.

ETSU reserves the right to make changes as required in course offerings, curricula, academic policies, and other rules and regulations affecting students to be effective whenever determined by the institution. These changes will govern current and formerly enrolled students. Enrollment of all students is subject to these conditions.

Current information may be obtained from the following sources: Admission Requirements-School of Graduate Studies; Course Offerings-department offering course; Degree Requirements-School of Graduate Studies; Fees and Tuition-Comptroller's Office.

ETSU complies fully with the Family Educational Rights and Privacy Act of 1974, as amended. The complete statement of policy may be obtained from the Office of the Registrar. East Tennessee State University is fully in accord with the belief that educational and employment opportunities should be available to all eligible persons without regard to age, gender, color, race, religion, national origin, disability, veteran status, or sexual orientation.

ETSU provides the opportunity for students to increase their knowledge by offering programs of instruction in the various disciplines and programs through faculty who, in the opinion of ETSU, are qualified for teaching at the college level. The acquisition and retention of knowledge by any student are, however, contingent upon the student's desire and ability to learn while applying appropriate study techniques to any course or program. Thus, ETSU must necessarily limit representation of student preparedness in any field of study to that competency demonstrated at that specific point in time at which appropriate academic measurements were taken to certify course or program completion.

East Tennessee State University makes available to prospective students and employees the ETSU Security Information Report. This annual report includes campus crime statistics for the three most recent calendar years and various campus policies concerning law enforcement, the reporting of criminal activity, and crime prevention programs. The ETSU Security Information Report is available upon request from East Tennessee State University, Department of Public Safety, Box 70646, Johnson City, TN 37614-1702. The report can be accessed on the Internet at: http://www.etsu.edu/dps/security_report.htm.

**East Tennessee State University
Johnson City, Tennessee**

Vol. XCI March 2004 No. 2

**Accreditation
Commission on Colleges of the
Southern Association of Colleges and Schools**

East Tennessee State University is accredited by the
Commission on Colleges of the Southern Association of Colleges and Schools
(1866 Southern Lane, Decatur, Georgia, Telephone number 404-679-4501)
to award certificate, associate, bachelor's, master's, educational specialist,
and doctoral degrees.

Memberships

The American Council on Education
The American Association of State Colleges and Universities
The Tennessee College Association
The Council for Advancement and Support of Education
The Council of Graduate Schools in the United States
The Council of Southern Graduate Schools
The Tennessee Conference of Graduate Schools
Association of Academic Health Centers
Oak Ridge Associated Universities
Institute of International Education
National Collegiate Athletic Association
Southern Conference

POSTMASTER, send address changes to:
School of Graduate Studies
Box 70720, East Tennessee State University
Johnson City, Tenn. 37614-1710

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East Tennessee State University is a Tennessee Board of Regents institution and is fully in accord with the belief that educational and employment opportunities should be available to all eligible persons without regard to age, gender, color, race, religion, national origin, disability, veteran status, or sexual orientation.

East Tennessee State University is a Tennessee Board of Regents institution. The Tennessee Board of Regents is the nation's sixth largest higher education system, governing 45 post-secondary educational institutions. The TBR system includes six universities, 13 two-year colleges, and 26 technology centers, providing programs to over 180,000 students in 90 of Tennessee's 95 counties.

Public higher education in Tennessee is coordinated by the Tennessee Higher Education Commission and consists of two systems -- The University of Tennessee campuses, governed by the University of Tennessee Board of Trustees, and the state universities, community colleges, and technology centers governed by the Tennessee Board of Regents. The General Assembly created the Commission in 1967 to achieve coordination and unity among the programs of Tennessee's public post-secondary institutions and to serve as a primary source of information concerning higher education in Tennessee.

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EAST TENNESSEE STATE UNIVERSITY

VISION STATEMENT

To become the best regional university in the country.

ETSU MISSION/INSTITUTIONAL PURPOSE

East Tennessee State University strives to create a community of learning that actively advances the fundamental values of higher education - the free interchange of ideas, curiosity and the desire for learning, critical thinking and self-reflection, ethical behavior, academic freedom, and appreciation of human diversity. Every academic program and support unit at ETSU contributes to the creation of this community. The university places primary emphasis on student learning through effective and innovative teaching by faculty, working in partnership with administration and staff. It seeks to promote students' intellectual and social development by providing academic programs and co-curricular opportunities that meet high standards of quality.

ETSU embraces its regional setting and proudly reflects its traditional roots and Appalachian heritage. The university actively recruits well qualified undergraduate and graduate students from throughout Tennessee, especially from Northeast Tennessee and adjacent states. In addition, it supports selected programs that attract students from across the nation as well as from other countries. The university makes educational opportunities available to all eligible people without regard to age, gender, color, race, religion, national origin, disability, veteran status, or sexual orientation.

The university pursues community partnerships that will both enhance its institutional effectiveness and serve the region. It places special emphasis on community-based and interdisciplinary learning. ETSU is a leader in improving the intellectual, cultural, economic, political, social, and health environment of Northeast Tennessee and the Southern Appalachian region.

ETSU offers programs through eight colleges and schools related to five areas: arts and sciences, business, education, health sciences, and technology. It affirms the value of liberal education for all undergraduate students and offers programs of study leading to expertise in the arts and sciences and selected professional fields. The university places a distinctive emphasis on improving student competence in writing, oral communication, and using information technology. It strives to address the needs of gifted students seeking greater educational challenges and nontraditional students returning to the classroom. ETSU is committed to providing a rich campus life, offering a variety of residential opportunities and student activities, and supporting excellent intercollegiate and intramural athletic programs.

The university is recognized for its unique focus on the health sciences. ETSU's Division of Health Sciences, composed of the colleges of Medicine, Nursing, and Public and Allied Health, seeks to support the health and wellness of the people of Southern Appalachia, with special emphasis on meeting the needs of rural populations.

ETSU offers graduate programs to meet the needs of its student population and extensive service region. These programs award master's degrees in most liberal arts disciplines and technical and professional fields. The university awards doctoral degrees in education and in selected disciplines that reflect its health sciences mission.

The university is committed to improving the availability and quality of programming for individuals seeking educational opportunities beyond the Johnson City campus and via the Internet. ETSU also seeks to use emerging technologies to enhance the quality of instruction it provides to all of its students.

As a doctoral research-intensive university, ETSU is committed to teaching based in scholarship and to advancing programs of research and creative activity that improve the quality of life in the region, the state, the nation, and the world. The university seeks to provide an environment in which faculty, students, and staff are encouraged to inquire and to produce and disseminate the highest quality scholarly and creative work. To sustain and enhance this environment, ETSU seeks to secure financial support for research and creative programs through partnerships with broader communities.

East Tennessee State University strives to achieve optimal efficiency in its use of resources while always seeking to offer instructional, research, and public service programs of the highest quality. The university recognizes that employees are its most valuable resource and students its most important constituents. Putting people first is the foremost value guiding ETSU's operations. (revised 4/7/03)

The University

East Tennessee State University is one of the principal campuses governed by the Tennessee Board of Regents. Since it opened in 1911 as a two-year normal school educating teachers, ETSU has grown into a major, diversified educational institution serving more than 11,800 students and the Tri-Cities Tennessee/Virginia, the nation's first "All-America City" region.

Attracting students from all 50 of the United States and numerous other countries, ETSU is comprised of eight colleges and schools: College of Arts and Sciences, College of Business and Technology, College of Education, James H. Quillen College of Medicine, College of Nursing, College of Public and Allied Health, School of Continuing Studies, and School of Graduate Studies.

ETSU nurtures an educational environment which respects individuality and stimulates creativity. It expands educational opportunities for all who desire and need university preparation while maintaining a setting conducive to intellectual curiosity and one that produces an enjoyable campus life.

The university is committed to the needs of all its students, including undergraduates, graduates, and students and residents in the College of Medicine. While serving a wide range of students – from those who have emerging potential for university-level coursework to the gifted – ETSU provides all citizens in the region opportunities to continue lifelong learning. The institution has a strong commitment to those individuals whose experiences, age, family responsibilities, and aspirations place them among a large group of collegians.

ETSU has expanded to include baccalaureate degree programs in many fields and graduate programs which result in the master's degree, educational specialist degree, and doctorate. For undergraduates, the university offers broad programming which embraces the philosophy of a liberal education for all with special programs leading to a primary level of expertise in the arts and sciences disciplines and selected professional fields. Its master's studies provide advanced and increasingly specialized preparation in the academic, technical, and professional fields essential to both the needs of the population and regional development. Doctoral programs are available in education and in the health sciences. The more than 100 degree programs offered at ETSU are organized within the areas of arts and sciences, business, education, health sciences and services, and technology.

The university offers all programs and degrees during its regular day schedule, and extensive evening programs are also provided. With a 350-acre main campus in Johnson City along with centers in Kingsport and Elizabethton and sites in Bristol and Greeneville, ETSU maintains a semester enrollment of more than 11,800 students and serves 5,000-10,000 persons annually through continuing education and extended service programs.

A statewide leader in articulation, ETSU shares over 300 agreements with 14 state and regional colleges and universities, allowing students to transfer credit hours easily. Further, ETSU presents more courses through interactive television than any other college or university in Tennessee.

Affirming a commitment to the fundamental values of higher education, ETSU presents programs of study that promote curiosity, stimulate thought, encourage self-reflection, and foster a genuine desire for learning; offer a broadened world view and encourage the free interchange of ideas; and, importantly, reflect concern for creating a responsible, ethical society. ETSU faculty and students together constantly strive to expand the frontiers of academic inquiry and, in doing so, identify the programs that best serve the region, state, nation, and world.

Institutional emphases are placed on teaching and learning, while the pursuit of research and public service is necessary to fully realize the university's objectives. Through scholarship, research, and creative publication, the ETSU faculty increasingly participate in a critical review of modern civilization's accumulated body of knowledge and are expected to add findings from their own investigations to the record. Faculty and staff also perform professional service when they employ their understanding of disciplines and fields of expertise to aid selected endeavors by the university's several publics.

Assistance in meeting the health care needs in the region has been a vital role of ETSU throughout its history. Programs in health education, public and environmental health, nursing, and others, some dating from the institution's earliest days, have evolved into formal colleges. The establishment of the James H. Quillen College of Medicine and its combination with the colleges of Nursing and Public and Allied Health to form a Division of Health Sciences create greater opportunities to serve the region, state, and nation through the development of a comprehensive academic health sciences center in Northeast Tennessee.

Focusing its primary interest and effort on planning for the future, the university is distinctly different in its vision, as outlined in "Turning Toward 2011: A Report by the Commission on the Future of ETSU." The faculty, staff, community leaders, alumni, and students – more than 100 of them in all – who spent two years anticipating what ETSU might be like on the way to its centennial in 2011 described a university that will continue to build alliances beyond its walls, exerting strong leadership in health care and promotion, economic development, education, environmental concerns, crime and violence issues, and government/public administration. In doing so, ETSU seeks to balance the innovations of the 21st century with the need to preserve the human contact that must continue to characterize teaching and learning at East Tennessee State University, as it has since 1911.

ETSU VALUES

ETSU pursues its mission through a student-centered community of learning reflecting high standards and promoting a balance of liberal arts and professional preparation, continuous improvement, and based on core values where:

- PEOPLE come first, are treated with dignity and respect, and are encouraged to achieve their full potential;
- RELATIONSHIPS are built on honesty, integrity, and trust;
- DIVERSITY of people and thought is respected;
- EXCELLENCE is achieved through teamwork, leadership, creativity, and a strong work ethic;
- EFFICIENCY is achieved through wise use of human and financial resources; and
- COMMITMENT to intellectual achievement is embraced.

ETSU STRATEGIC GOALS FOR THE 2000-2005 PLANNING CYCLE

East Tennessee State University will emphasize its mission-distinctive focus through the following goals:

1. Expand and enrich student learning with
 - a) A commitment to a student-centered environment
 - b) Demonstrated quality undergraduate and graduate programs
 - c) A strong General Education Core
 - d) A commitment to providing students opportunities for appropriate careers through advising, counseling, and planning
 - e) Internship/Co-Op opportunities
 - f) A focus on health professions education and services
 - g) Community-based programs
 - h) Interdisciplinary offerings
2. Conduct faculty and student research, scholarship, and creative activities that
 - a) Strengthen the learning environment
 - b) Enhance the region
 - c) Advance human knowledge
3. Serve and partner with our constituents to
 - a) Enhance teaching, learning, and research
 - b) Improve the quality of life and economic well-being of the region
 - c) Strengthen the community and university
4. Demonstrate a commitment to cultural diversity through
 - a) Expanded programs and activities
 - b) Enhanced campus environment

Student Conduct, Rights, and Responsibilities

University students are citizens of the state, local, and national governments and of the academic community, and are, therefore, expected to conduct themselves as law-abiding members of each community at all times. Admission to an institution of higher education carries with it special privileges and imposes special responsibilities apart from those rights and duties enjoyed by nonstudents. In recognition of the special relationship that exists between the institution and the academic community which it seeks to serve, the Tennessee Board of Regents has authorized the president of the university to take such action as may be necessary to maintain campus conditions and preserve the integrity of the institution and its educational environment.

Pursuant to this authorization, the Tennessee Board of Regents has developed regulations which are intended to govern student conduct on the campus. In addition, students are subject to all national, state, and local laws and ordinances. If a student's violation of such laws or ordinances also adversely affects the institution's pursuit of its educational objectives, the institution may enforce its own regulations regardless of any proceedings instituted by other authorities. Conversely, violation of any section of the Tennessee Board of Regents regulations or university rules may subject a student to disciplinary measures by the institution whether or not such conduct is simultaneously violative of state, local, or national laws.

A complete statement on institutional student disciplinary rules and procedures can be found in the student handbook located in the ETSU telephone directory.

Student Complaint Policy and Procedure

East Tennessee State University is committed to maintaining a learning environment which promotes student academic excellence and personal development. Various departments on campus have written procedures which allow students to appeal actions taken by the department which directly affect the student. Students who wish to appeal a specific administrative decision should contact the appropriate department and request an appeal form.

Students who have a concern about their academic advisement or other academic issues, including an action based upon academic policies, procedures, or deadlines, should contact the Director of University Advisement, P.O. Box 70291, Culp University Center.

Student concerns or complaints pertaining to the offices of Admissions, Financial Aid, or the Registrar should be directed to the Vice Provost, P.O. Box 70731, Burgin Dossett Hall.

Students who have a general complaint pertaining to university policies, procedures, or personnel should provide a written statement outlining the nature of the complaint to the Dean of Students, P.O. Box 70725, Culp University Center.

Student complaints concerning sexual, racial, disability, and other harassment should be filed with the Director of Equal Employment Opportunity/Affirmative Action, P.O. Box 70734, Burgin Dossett Hall. When the charge of harassment is by one student against another student, the complaint should be filed with the Dean of Students.

In every instance, the appropriate individual will investigate the complaint, seek an equitable solution, and respond to the student in a timely manner.

Campus Security Report

East Tennessee State University makes available to prospective students and employees the ETSU Security Information Report. This annual report includes campus crime statistics for the three most recent calendar years and various campus policies concerning law enforcement, the reporting of criminal activity, and crime prevention programs. The ETSU Security Information Report is available upon request from East Tennessee State University, Department of Public Safety, Box 70646, Johnson City, TN 37614-1702. The report can be accessed on the Internet at http://www.etsu.edu/dps/security_report.htm.

Student's Bill of Rights

Students along with faculty, staff, and administrators are all members of the East Tennessee State University community. Inherent with such membership is the responsibility to conduct oneself reasonably to maintain a civil community which respects the rights of all individuals.

The student has certain rights guaranteed by the Federal and State Constitutions or statutorily created legislation including:

1. Freedom of inquiry, freedom of speech, and freedom of expression that is respectful or sensitive to the rights of individuals.
2. The right to peaceably assemble, in accordance with federal, state, local, and ETSU regulations.
3. Religious freedom and a clear division of church and state.
4. Freedom from unreasonable search and/or seizure of person, or personal property.
5. Freedom from discrimination or harassment on the basis of gender, age, race, color, religion, national origin, or other protected status.
6. The right to privacy, including the maintenance of confidential records in accordance with provisions of the Family Educational Rights and Privacy Act of 1974 and 1975, qualified by the Tennessee Open Records Law.
7. The right to due process.

The Tennessee Board of Regents grants additional rights including:

1. The right to due process in disciplinary procedures of the university, including written notification of charges, an explanation of procedures, and a hearing before an appropriate administrator or committee.
2. The right to expeditious review of disciplinary sanctions upon appeal.
3. The right to participate in the decision-making process of the university through the Student Government Association, other student governance organizations, and membership on university standing and advisory committees.
4. The right to affiliate with officially registered student organizations if the membership requirements of those organizations have been met, and the right to seek to establish, through official procedures, additional student organizations of one's choosing.

East Tennessee State University acknowledges that students have a legitimate expectation that:

1. Classes meet as scheduled, and begin and adjourn on time.
2. Course requirements are clearly specified.
3. The instructor is prepared for class and possesses both oral and written communications skills.
4. Paper project grades and test results are received in a timely manner.
5. Information about progress in coursework is provided.
6. The instructor is qualified to teach the subject matter.

Additionally, students have the right to expect:

1. Accurate information concerning institutional services, regulations, policies, and procedures, in published form.
2. Representation in the university governance system.
3. Sound and accurate academic advice, information regarding courses required for graduation, and their schedule sequence.
4. Reasonable notice of any changes in academic requirements or programs and assurance that such changes will not be made in a way that unduly impedes the academic progress of the student already enrolled.
5. Flexibility in course scheduling (by dropping and adding) or withdrawing within university guidelines.
6. Information about the various types of financial assistance available.
7. Freedom to evaluate courses, programs, and services, and provide input to appropriate segments of the campus administration.

Academic Calendar 2004-2005

FALL TERM 2004

May 1* Preferred date to receive application for graduate admission for Fall (International)

June 1* Preferred date to receive application for graduate admission for Fall (Domestic)

Aug. 23-27 Registration
Complete registration dates are included in the "Schedule of Classes"

Aug. 30 Classes begin

Sept. 3 Last day to late register or late add a course

Sept. 6 Labor Day holiday

Sept. 13 Last day for graduate students to file intents to graduate, committee forms, candidacy forms and programs of study for Dec. 2004

Sept. 27 Last day to drop without a grade of "W"

Oct. 18-19 Fall break

Oct. 25 Last day to schedule oral exams with the Graduate Office for Dec. 2004

Oct. 25 Last day to drop a course

Nov. 8 Last day to complete oral examinations for December graduation

Nov. 15 Last day to file review copies of theses and dissertations with the Graduate Office for Dec. 2004

Nov. 25-26 Thanksgiving holidays

Dec. 8 Last day to withdraw from the university

Dec. 10 Last day of classes

Dec. 11-16 Final examinations

Dec. 13 Last day to pay microfilming fees in the Office of the Comptroller

Dec. 15 Last day to file final copies of theses and dissertations with the Graduate Office

Dec. 18 Commencement

SPRING TERM 2005

Oct. 1* Preferred date to receive applications for graduate admission for Spring (International)

Nov. 1* Preferred date to receive applications for graduate admission for Spring (Domestic)

Jan. 10-14 Registration
Complete registration dates are included in the "Schedule of Classes Bulletin"

Jan. 17 Martin Luther King holiday

Jan. 18 Classes begin

Jan. 24 Last day to late register or late add a course

Feb 1 Last day for graduate students to file intents to graduate, committee forms, candidacy forms and programs of study for May 2005

Feb. 15 Last day to drop a course without a grade of "W"

March 7-12 Spring break

March 15 Last day to drop a course

March 18 Last day to schedule oral exams with the Graduate Office for May 2005

March 25 Good Friday holiday

March 28 Last day to complete oral examinations for May graduation

April 4 Last day to file review copies of theses and dissertations with the Graduate Office for May 2005

April 27 Last day to withdraw from the university

April 29 Last day of classes

April 30 - May 5 Final examinations

May 2 Last day to pay microfilming fees in the Office of the Comptroller

May 4 Last day to file final copies of theses and dissertations with the Graduate Office

May 7 Commencement

*Some programs have earlier application deadlines; see individual programs for those dates.

SUMMER TERM 2005

Complete registration dates are included in the "Schedule of Classes Bulletin"

Pre-Summer, May 16 - June 3

Feb. 1* Preferred date to receive applications for graduate admission for Summer (International)

March 15* Preferred date to receive applications for graduate admission for Summer (Domestic)

May 9-13 Registration

May 16 Classes begin

May 17 Last day to late register or late add a Pre-Summer course

May 19 Last day to drop a course without grade of "W"

May 26 Last day to drop a course

May 30 Memorial Day holiday

June 1 Last day to withdraw

June 3 Last day of classes

Complete Session, May 16 - Aug. 12

Dual Session, June 6 - Aug. 12

Session 1, June 6 - July 8

Feb. 1* Preferred date to receive applications for graduate admission for Summer (International)

March 15* Preferred date to receive applications for graduate admission for Summer (Domestic)

June 2-3 Registration

June 6 Classes begin

June 8 Last day to late register or late add a Session 1 course

June 9 Last day for graduate students to file intents to graduate, committee forms, candidacy forms and programs of study for Aug. 2005

June 9 Last day to late register or late add a Dual Session course

June 13 Last day to drop a course without grade of "W" Session 1

June 22 Last day to drop a course without grade of "W" Dual Session

June 24 Last day to drop a Session 1 course

June 28 Last day to schedule oral exams with the Graduate Office for Aug. 2005

June 30 Last day to file review copies of Ed.D. dissertations with the Graduate Office for Aug. 2005

July 4 Independence Day holiday

July 6 Last day to withdraw Session 1

July 8 Last day of Session 1

Session 2, July 11 - Aug. 12

July 7-8 Registration

July 8 Last day for graduate students to complete oral examinations for August graduation

July 11 Classes begin

July 13 Last day to late register or late add a Session 2 course

July 15 Last day to file review copies of theses and D.S.N. or Ph.D. dissertations with the Graduate Office for Aug. 2005

July 19 Last day to drop a course without grade of "W" Session 2

July 29 Last day to drop a Session 2 course

Aug. 10 Last day to pay microfilming fees in the Office of the Comptroller

Aug. 10 Last day to withdraw Session 2 and Dual Session

Aug. 12 Last day to file final copies of theses and dissertations with the Graduate Office

Aug. 12 Last day of classes

The Graduate Council

Voting Members

Marian Whitson, Ph.D.	College of Arts and Sciences
Martha Pointer, Ph.D.	College of Business and Technology
John M. Taylor, Ph.D.	College of Education
William Scott Champney, Ph.D.	College of Medicine
Jo-Ann S. Marrs, Ed.D.	College of Nursing
Phillip Scheuerman, Ph.D.	College of Public and Allied Health
Mark Ellis, M.S.L.S.	Library
Kimberly Norris Thompson	Graduate Student, Member at Large
Tina Davis	Graduate Student, Member at Large
Lee Pike, Ph.D.	Member at Large
Marie Tedesco, Ph.D.	School of Continuing Studies
James Bitter, Ed.D.	Faculty Senate
Martin L. Barrett, Ph.D.	Member at Large
Don Hoover, Ph.D.	College of Medicine
Wallace Dixon, Ph.D.	Member at Large

Nonvoting Members

Wesley Brown, Ph.D.	Vice Provost for Academic Affairs and Dean of the School of Graduate Studies and Special Programs
Jeffrey Powers-Beck, Ph.D.	Assistant Dean of the School of Graduate Studies
Michael Woodruff, Ph.D.	Vice Provost for Research and Sponsored Programs
Mary Ellen Musick	Assistant Registrar, Data Management

Graduate Coordinators

College of Arts and Sciences

Dr. Rebecca A. Pyles, Interim Dean
 Art - Catherine Murray
 Biological Sciences
 Biology - Dr. Darrell J. Moore
 Microbiology - Dr. Eric L. Mustain, Health Science
 Chemistry - Dr. Hamid S. Kasmai
 Communication, Professional - Dr. James J. Mooney
 Criminal Justice and Criminology - Dr. F. Wayne Gillespie
 English - Dr. Mark Holland
 History - Dr. Dale J. Schmitt
 Mathematics - Dr. Robert Gardner
 Psychology
 Clinical - Dr. Jon Ellis
 General - Dr. Otto Zinser
 Social Work - Dr. Helene Halvorson
 Sociology and Anthropology - Dr. Martha A. Copp

College of Business and Technology

Dr. Linda R. Garceau, Dean
 Associate Dean for Graduate Studies - Dr. Martha Pointer
 Accountancy - Dr. Gary Burkette
 City Management/Public Administration - Dr. Paul Trogen
 Computer Science - Dr. Martin Barrett, Dr. Phillip Pfeiffer
 Master of Business Administration - Dr. Fred Mackara
 Graduate Certificate in Business Administration - Dr. Fred Mackara
 Technology - Engineering - Mr. Hugh Broome
 Technology - Digital Media - Ms. Cher Cornett
 Technology - Geoscience - Dr. Steven Wallace

College of Education

Dr. Hal Knight, Interim Dean
 Curriculum & Instruction
 Educational Media and Educational Technology - Dr. Harold Lee Daniels
 Elementary Education - Dr. Katie Dunn Driskell
 Secondary Education - Dr. Karilee Freeberg
 MAT (Elementary and Secondary) - Dr. Rhona S. Cummings
 Reading - Dr. Jane Melendez
 Storytelling - Dr. Joseph Sobol
 Technology and Learning - Dr. Elizabeth Ralston
 Educational Leadership and Policy Analysis
 Administrative Endorsement Concentration - Dr. Louise MacKay

College of Education (continued)

Postsecondary and Private Sector Leadership Concentration - Dr. Terry Tollefson
 Classroom Leadership, School Leadership, and Teacher
 Leadership Concentrations - Dr. Russell F. West
 Human Development & Learning
 Counseling - Dr. Clifton Mitchell
 Early Childhood - Dr. Laurelle Phillips
 Special Education - Dr. Rebecca Burleson
 Physical Education, Exercise, and Sport Sciences
 M.A. - Dr. Tom Coates

College of Medicine

Dr. Ronald D. Franks, Dean
 Dr. Mitchell E. Robinson, Associate Dean for Graduate Studies, College of Medicine
 Anatomy and Cell Biology - Dr. Dennis DeFoe
 Biochemistry - Dr. Sankhavaram Panini
 Microbiology - Dr. Robert Schoborg
 Pharmacology - Dr. Alok Agrawal
 Physiology - Dr. Tom Eacy

College of Nursing

Dr. Patricia L. Smith, Interim Dean

College of Public and Allied Health

Dr. Wilsie S. Bishop, Dean
 Communicative Disorders
 Audiology - Dr. Marc A. Fagelson
 Speech Pathology - Dr. Methlee Ennis
 Environmental Health - Dr. Creg S. Bishop
 Gerontology Certificate - Dr. Creg S. Bishop
 Health Care Management Certificate - Dr. Wilsie S. Bishop
 Physical Therapy - Dr. Susan Epps
 Public Health - Dr. Beth Hogan

School of Continuing Studies

Dr. Norma MacRae, Dean
 Liberal Studies - Dr. Marie Tedesco, Director

The School of Graduate Studies

The mission of the School of Graduate Studies is to foster post-baccalaureate programs of study and scholarship that are recognized for their excellence and contributions to society. The School of Graduate Studies will provide an environment that stimulates:

Advanced understanding of the concepts, issues, and practice of a discipline;

Independent thought and the ability to generate new knowledge;

The ability to contribute significantly to the academic community, professions, and society; and

Diversity among ideas, programs, and people.

Graduate students assume full responsibility for knowledge of the policies and regulations of the Graduate School and special requirements of individual degree programs.

Program Administration

The dean of the School of Graduate Studies is the administrator of graduate education at the university. The major duties of the office include admission and classification of graduate students as determined by university policy, administration of all regulations and policies governing graduate education, and maintenance of standards prescribed by the governing board and various university and program accrediting agencies. The dean is responsible for the interpretation and implementation of the actions of the Graduate Council.

Graduate Council

The Graduate Council is an advisory body that assists the dean of the School of Graduate Studies in administering the graduate programs at East Tennessee State University. The Graduate Council reviews all curriculum changes in graduate courses or programs and approves faculty for graduate faculty status. However, the Council's main task is to discuss, review, and advise on all matters concerning Graduate School policies. Any ETSU faculty member may offer items for discussion.

Degree Programs

The School of Graduate Studies offers programs of study leading to graduate certificates, various master's degrees, the education specialist degree, and various doctoral degrees. The programs are designed to provide specialized training in professional, academic, and interdisciplinary areas. Specific requirements for each degree program are defined under Courses of Instruction in this catalog.

Graduate Liaisons

Each graduate program or major is represented by a Graduate Liaison who is prepared to assist students with all aspects of the graduate process, from admission through graduation. If you have questions or would like to explore options for graduate study, please contact the appropriate Liaison listed below:

Mary Duncan
(423) 439-4302

duncanm@etsu.edu

Audiology, Biomedical Sciences, Environmental Health, Nursing, Physical Therapy, Public Health, Speech Pathology, and three certificate programs: Advanced Nursing Practice, Gerontology, and Health Care Management

Judy Lawson
(423) 439-6590

lawsonj@etsu.edu

MBA, Accounting, City Management, Public Administration, all degrees in Educational Leadership and Policy Analysis, Social Work, and two certificate programs: Business Administration and Entrepreneurial Leadership

Robin O'Dell
(423) 439-6148

odell@etsu.edu

Non-Degree Students, Counseling, Early Childhood Education, Elementary and Secondary Education, MAT, Educational Media and Technology, Physical Education, Reading/Storytelling, and Special Education, Teaching and Learning (RODP)

Gail Powers
(423) 439-4703

powersg@etsu.edu

Art, Biology, Chemistry, Clinical Nutrition, Computer Science, Criminal Justice, English, History, Mathematics, Microbiology, Professional Communication, Psychology, Sociology and Anthropology, Technology, the Master of Arts in Liberal Studies, and certificate in Archival Studies

Graduate Degrees, Concentrations, and Certificates

Field of Study	Degree	Field of Study	Degree
Accounting	M.ACC.	Elementary Education	M.Ed.
Archival Studies	*Certificate	Elementary Education	M.A.T.
Art	M.A.	English	M.A.
Art History		Entrepreneurial Leadership	*Certificate
Studio Art		Environmental Health	M.S.E.H.
Art	M.F.A.	Administrative Program	
Studio Art		Specialist Program	
Audiology	Au.D.	Gerontology	*Certificate
Biology	M.S.	Health Care Management	*Certificate
Biology		History	M.A.
Microbiology		Liberal Studies	M.A.L.S.
Biomedical Sciences	M.S. and Ph.D.	Archival Studies	
Anatomy		Mathematical Sciences	M.S.
Biochemistry		Nursing	M.S.N. and D.S.N.
Microbiology		Nursing – Advanced Nursing	
Pharmacology		Practice	*Certificate
Physiology		Physical Education	M.A.
Business Administration	M.B.A.	Exercise Physiology and Performance	
Business Administration	*Certificate	Physical Education K-12	
Chemistry	M.S.	Sports Management	
Clinical Nutrition	M.S.	Physical Therapy	D.P.T.
Communication, Professional	M.A.	Psychology	M.A.
Communicative Disorders	M.S.	Clinical	
Speech Pathology		General	
Computer and Information Science	M.S.	Public Health	M.P.H.
Applied Computer Science		Health Services Administration	
Information Technology		Community Health	
Counseling	M.A.	Public Administration	
Community Agency Counseling		City Management	M.C.M.
Elementary and Secondary School		Planning and Development	M.P.A.
Higher Education		Public Financial Management	M.P.A.
Marriage and Family Therapy		Reading	M.A.
Criminal Justice	M.A.	Reading Education	
Early Childhood Education	M.A.	Storytelling	
Early Childhood Education	M.Ed.	Secondary Education	M.Ed.
Early Childhood		Classroom Technology	
Early Childhood Teaching		Secondary Education	M.A.T.
Educational Leadership	M.Ed.	Social Work	M.S.W.
Administrative Endorsement		Advanced Standing	
Educational Leadership	Ed.S.	Traditional Entry	
School System Leadership		Sociology	M.A.
Teacher Leadership		Applied	
Administrative Endorsement		General	
Educational Leadership	Ed.D.	Special Education	M.Ed.
School Leadership		Advanced Practitioner	
Classroom Leadership		Early Childhood Special Education	
Post Secondary and Private Sector Leadership		Special Education	
Administrative Endorsement		Teaching and Learning	M.Ed.
Educational Media and Educational Technology	M.Ed.	Technology	M.S.
Educational Communications and Technology		Digital Media	
School Library Media		Engineering Technology	
		Geoscience	

*These are certificate programs for which a degree is not conferred.

Admission Requirements

Application for admission to graduate study is open to any person with a bachelor's degree from a regionally accredited institution. The transcripts of applicants with bachelor's degrees from nonregionally accredited institutions will be reviewed individually. If additional coursework is required to meet East Tennessee State University's minimum accreditation standards for graduation, it should be specified at the time of admission.

All application materials become the property of the university and will not be forwarded or returned. Incomplete applications are maintained in an active file for 12 months, after which the file is purged. Files in inactive status for 12 months may be purged, after which the student will be required to resubmit all new application materials prior to the deadline dates for the term in which registration/enrollment is anticipated. A postage-paid card to request application materials is included in this catalog, and all materials are available on the web at: <http://www.etsu.edu/gradstud/>.

Applicants seeking admission to the School of Graduate Studies should have complete applications on file by the following preferred dates: June 1 for the fall semester, November 1 for the spring semester, and March 15 for the summer session. These deadlines are for U.S. residents. International students should follow the calendar listed in the Admission of International Students section of this catalog. Individual programs may have earlier admission deadlines. For this information, students should contact the department whose program they wish to enter. Since decisions regarding financial support (fellowships, assistantships, and scholarships) for the academic year are normally made in March and April of each year, applicants seeking financial assistance and admission for the fall semester are advised to submit completed applications for review by March 1. Applications can be submitted electronically via the web at: <http://www.etsu.edu/gradstud/gradad.htm>.

Application for Admission to a Master's Degree Program

For admission to a master's degree program in the School of Graduate Studies, a 2.5 undergraduate GPA (on a 4.0 scale) is required. Some master's programs have higher requirements. Specialist, doctoral, and international students are subject to additional specific requirements and should refer to the appropriate sections in this catalog. Students with less than a 2.5 GPA who wish to apply must address the low GPA in the personal essay (see #4 below).

The following materials must be submitted before an applicant will be considered for admission:

1. Payment of required nonrefundable application fee. Students who previously have been or currently are admitted as non-degree or degree-seeking graduate students may not have to pay the application fee.
2. A completed application form.
3. One official transcript of all previous undergraduate and graduate work, except previous coursework taken at ETSU.
4. A personal essay.
5. Additional materials required for admission to a specific program (see graduate program listings in this catalog).

When all pertinent materials are received, the office of graduate admissions will review the application and, if university requirements are met, forward the materials to the graduate program for evaluation. Recommendation for admission to a program is the primary responsibility of the graduate program coordinator or department admissions committee chair. Graduate program admission requirements are defined under Graduate Program Listings in this catalog. The final decision to admit or reject an applicant rests with the university through the dean of the School of Graduate Studies.

Application for Admission to the Educational Specialist Degree Program

An applicant seeking admission to the specialist in education degree must hold a bachelor's degree and a master's degree. The following materials must be submitted before an applicant will be considered for admission:

1. Payment of required nonrefundable application fee. Students who previously have been or currently are admitted as non-degree or degree-seeking graduate students may not have to pay the application fee.
2. A completed application form.
3. One official transcript of all previous undergraduate and graduate work, except previous coursework taken at ETSU.
4. A personal essay.
5. A photostatic copy of the teaching certificate.
6. Official scores from the general portions of the Graduate Record Examination.
7. Four letters of recommendation.

When all pertinent materials are received, the office of graduate admissions will review the application and, if university requirements are met, forward the materials to the graduate program for evaluation. Program admission requirements for the specialist degree are defined under the Department of Educational Leadership and Policy Analysis in this catalog. The final decision to admit or reject an applicant rests with the university through the dean of the School of Graduate Studies.

Application for Admission to a Doctoral Degree Program

An applicant seeking admission to a doctoral degree program must hold a bachelor's or master's degree. The following materials must be submitted before an applicant will be considered for admission:

1. Payment of required nonrefundable application fee. Students who previously have been or currently are admitted as non-degree or degree-seeking graduate students may not have to pay the application fee.
2. A completed application form.
3. One official transcript of all previous undergraduate and graduate work, except previous coursework taken at ETSU.
4. A personal essay.
5. Official scores on the general portion of the Graduate Record Examination (GRE).
6. Four letters of recommendation.

Additional specific requirements are listed under the sections pertaining to each doctoral program. When all pertinent materials are received, the office of graduate admissions will review the application and, if university requirements are met, forward the materials to the graduate program for evaluation. Admission to the doctoral program is the primary responsibility of the program coordinator, program admissions committee chair, or designated representative(s). The final decision to admit or reject an applicant rests with the university through the dean of the School of Graduate Studies.

Admission of International Students

International students must meet the same requirements for admission to the graduate program that apply to citizens of the United States. An international student must have an equivalent four-year bachelor's degree with at least a "B" average on undergraduate coursework on various grading scales, this would indicate:

- a. 3.0 on a 4.0 scale;
- b. 16 on a 20-point scale;

- c. 80.0 from Chinese institutions;
- d. 1st Class, 2nd Class Honors, or Division from Indian institutions;
- e. Upper 2nd Class Honors on various British systems.

Other grading systems will be evaluated upon receipt of transcripts. An international student may apply for admission any semester. International student application materials should be received by: May 1 - fall semester; October 1 - spring semester; February 1 - summer session. The School of Graduate Studies must be notified of any change in the entering date after admission has been granted. Individual programs may have early admission deadlines and additional requirements. For this information, students should contact the departments whose program they wish to enter.

The following items must be received before admission will be considered:

1. A completed application form with a nonrefundable application fee.
2. Official or attested university records (including proof of all degrees received), with certified translations if the records are not in English. Records must be attested by the awarding institution; notarized copies and third-party attestations are not acceptable. Individual-year mark sheets from Indian institutions are required; summary marksheets will not suffice.
3. A personal essay.
4. Certification of English proficiency. Graduate students whose native language is not English must submit a score of 550 (paper) or 213 (computer-based) on the Test of English as a Foreign Language (TOEFL), taken within the past two years; a score of 6.5 on the International English Language Testing System (IELTS); or have received a degree from an accredited U.S. institution. Certain programs may require higher TOEFL scores. (All international students who receive a tuition scholarship or graduate assistantship must sit for an oral English proficiency interview upon their arrival at ETSU.)
5. Documented evidence of financial resources sufficient to support the student with at least U.S. \$20,647 per calendar year during the period of enrollment. (Figure subject to change)
6. Official scores on the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT), if required.
7. Letters of recommendation or rating forms, if required.
8. All international students are required to have acceptable insurance coverage against illness and accidents. The health and accident insurance must be maintained throughout the student's enrollment at ETSU.
9. Qualified international students may be considered for graduate non-degree admission to ETSU only as (1) visiting students during vacation breaks from other collegiate institutions in the U.S.; (2) non-degree students enrolled in ETSU courses offered outside the U.S.; and (3) non-degree students enrolled in appropriate ETSU campus classes. Students in category 3 who are on ETSU IAP-66s (J-1 status) must pursue programs of full-time study approved by the School of Graduate Studies, the Office of International Programs, and the appropriate academic division.

Admission must be granted, and financial documentation and degree confirmation must be received prior to issuance of an I-20 or IAP-66 form needed to obtain a visa.

The university will not enroll any student who has not been approved initially or for transfer by the Immigration and Naturalization Service (INS) to attend East Tennessee State University. International students accepted for graduate study at ETSU will receive a letter of acceptance from the university. This letter and the SEVIS I-20 form furnished by the university must be presented to the consular officer of the United States to whom the applicant applies for a student visa. ETSU will not accept visas issued for admission to other colleges or universities. International students admitted to graduate study are encouraged to arrive on campus

two weeks prior to the beginning of classes and should contact the Office of International Programs as soon as they arrive.

It is the responsibility of a nonimmigrant applicant to comply with current INS regulations in regard to collegiate enrollment. New INS regulations may prohibit the enrollment of an individual in B-1 or B-2 status.

The Office of International Programs administers the university's foreign student (F status) and visitor exchange (J status) programs. Other nonimmigrant applicants may consult with this office.

In all cases the final decision to admit or reject an applicant rests with the university through the dean of the School of Graduate Studies.

Admission Categories

Admission to the School of Graduate Studies is based mainly on academic preparation and potential, though the university retains the right to deny admission on nonacademic grounds, such as emotional maturity and personal deportment. Admission is denied to those applicants who do not qualify for one of the following subcategories of admission.

Unconditional Admission – A graduate student accepted unconditionally is a degree-seeking student who has fulfilled all of the School of Graduate Studies requirements and the criteria of the department to which the applicant is applying.

Conditional Admission – This category of admission is designed for applicants who are in the process of completing prerequisite courses or degrees or whose credentials are less competitive. Conditional admission may not be granted when significant admission criteria, such as required standardized testing, sufficient letters of recommendation, or in the case of international students, proof of an equivalent U.S. accredited undergraduate degree are missing.

Conditions will be outlined in the admission letter and must be removed by the date specified. If no date is specified, they must be removed prior to the completion of 15 graduate credit hours or one calendar year, whichever is later. The student must submit a request for unconditional status. The dean of the School of Graduate Studies will approve or deny the request upon recommendation from the degree program coordinator or program admissions committee. A student who has not met the conditional requirement deadlines will not be allowed to continue to register as a degree-seeking student and cannot be admitted to candidacy until the conditions have been met. Ultimately, failure to meet conditions of admission will result in dismissal from the program.

Visiting Student Admission – Admission as a visiting student is reserved for students who plan to earn a limited number of credits for transfer to a college or university where they are enrolled for a degree program. Visiting students may be admitted with a letter of good standing from the college where they are enrolled for a graduate degree program and with completion of a non-degree application.

Graduate Non-Degree Admission – This category of admission is for individuals who wish to enroll in graduate courses but who are not admitted to a graduate program at ETSU. These students are expected to have, at a minimum, a bachelor's degree from an accredited institution and must submit an official transcript verifying the bachelor's degree prior to the end of the first term of enrollment. If official proof of degree is not submitted prior to the end of the first term of enrollment, the ETSU transcript showing credit earned in non-degree status will not be released. Departments may exclude non-degree students from designated courses, and it is a department's prerogative to require non-degree students to have its approval prior to registering for any class. ETSU cannot assure a non-degree student that all or any work completed in this status will apply toward a degree. A student may petition to have a maximum of nine credit hours accepted for transfer credit upon subsequent admission to a degree program.

Second Master's Degrees

A student holding an earned master's degree from a regionally accredited U.S. institution may qualify for a second master's degree by completing a minimum of 21 semester hours of ETSU graduate work for thesis programs, or 24 hours of ETSU graduate work for non-thesis programs, approved by the student's advisory committee. All specific program requirements, with the possible exception of electives or duplicative courses, must be met for the second degree. Such requirements include the comprehensive exam or culminating experience, such as thesis, project, strategic experience, etc. In warranted circumstances, credit used to satisfy approved graduate certificate requirements may be applied toward the second degree.

Dual Degree Programs

In warranted circumstances, a student may seek admission to two master's programs concurrently. Prior to admission to the second program, approval must be granted by the program coordinator in each program and by the dean of the School of Graduate Studies. All requirements of both programs and the School of Graduate Studies, including matriculation limits, must be met, with the provision that up to nine hours of graduate coursework may be applied to both programs (thus possibly reducing by nine the total number of hours required for both degrees). Students will not be permitted to enroll simultaneously in a

master's degree program and in a doctoral degree program at ETSU.

Advanced Admission for Undergraduates

A senior, lacking no more than nine semester hours for graduation at East Tennessee State University, may register for graduate coursework. The total course load for a senior enrolled for graduate coursework may not exceed 12 credit hours. Requirements for the undergraduate degree must be completed during the semester in which the student is allowed to register for part-time graduate work. Petition forms, available in the School of Graduate Studies, must be signed by the undergraduate department chair and the dean of the School of Graduate Studies.

Admission of Faculty Members

Tenure track faculty or administrative staff holding faculty rank are ineligible to receive a graduate degree from ETSU. Exceptions to this policy may be granted by the dean of the School of Graduate Studies upon recommendation by the appropriate department chair and college dean when graduate study at ETSU will be a special advantage to the university and when graduate study elsewhere is not feasible. Members of the ETSU faculty may be admitted to the School of Graduate Studies as non-degree students through established procedures. A faculty member will not retain graduate faculty status while matriculating in a graduate program.

Advisement and Registration Requirements

Graduate Student Advising

All graduate students must meet with their academic advisors at least once a semester to discuss their program. The student is ultimately responsible for his or her program; however, counsel with an advisor will help to avoid errors in program planning. If no advisor has been assigned, the program coordinator or designee will be responsible for the advising.

Registration Procedures

Registration is available through *GoldLink-Online*. A calendar of these dates appears in the schedule of classes, published for each term. Students should contact the initial advisor designated in their letter of admission for assistance in planning and approval of their course registration. Students who have not received a letter of admission should contact the School of Graduate Studies. Please refer to the schedule of classes for information on *GoldLink-Online*. It is essential that registration be completed during the regular registration period. Late registration generally cannot be accommodated, but students are welcome to return for the next semester during regular registration.

Readmission-Reapplication

If a student has not been active in a graduate program for more than a year, a readmission form must be filed and approved by the dean of the School of Graduate Studies prior to re-enrollment.

Enrollment

Every student is required to enroll at the time and in the manner prescribed by the registrar. All charges for the ensuing semester must be paid, or otherwise provided for, before registration is completed.

Continuous Enrollment – Students who wish to use support services of the university (computer, library, laboratories, studios, etc.) and/or require faculty guidance for studies, research, or preparation of a prospectus and are not enrolled for coursework, thesis, or dissertation must be registered for the appropriate non-degree credit course (5990, 6990, 7990) in Readings and Research each term university support or facilities are being used, including summer term. Students who have previously registered for thesis, dissertation, and/or readings and research must be continuously registered for a minimum of one graduate credit hour every subsequent semester, including summer, until completion of the degree.

Readings and Research cannot count toward degree requirements.

Candidates for a master's degree with a thesis option must continue to register each semester (minimum of one credit) from the time of the initial registration for 5960-Thesis until the thesis is accepted by the School of Graduate Studies. (Individual programs may require minimum enrollments of up to 3 graduate credits.) No less than three credit hours nor more than six credit hours of thesis may be applied toward the master's degree.

Candidates for doctoral degrees must continue to register each semester from the time of the initial registration for 7960-Dissertation until the dissertation is accepted by the School of Graduate Studies. (Individual programs may require minimum enrollments of up to 3 graduate credits.) No less than 12 hours nor more than 21 hours of dissertation credit may be applied toward the doctoral degree.

A student must be enrolled for a minimum of one graduate credit hour during the term of graduation, with one exception: a student who does not meet the deadlines for completing degree requirements, including thesis/dissertation defense and orals, but does complete all requirements, including approval of the thesis/dissertation by the dean of the School of Graduate Studies, before the first day of classes for the following semester, will not be required to register for the term in which the degree is awarded.

Scheduling of Graduate Courses – A schedule of classes is

published each term by the registrar. Graduate students should plan schedules with major advisors prior to registration. Note that graduate courses offered by the College of Medicine adhere to a calendar which may differ from that of the rest of the university.

Combined Graduate and Undergraduate Enrollment (5xx7 and 5956 Courses) – In some curricula, master's level students may enroll in 5xx7 and 5956 courses which are colisted with 4xx7 and 4956 undergraduate courses. A student who has taken the 4xx7 or 4956 course for undergraduate credit cannot repeat the course for graduate credit. Graduate students enrolled in 5xx7 and 5956 courses shall be required to do specified work over and above that required of undergraduate students enrolled in companion 4xx7 and 4956 courses.

Specialist degree students may not enroll for 5xx7 and 5956 courses (except for 5957 "Topic in" courses); they must choose courses from the regular graduate-only series of 5000 and 6000 level courses, with a least one-half of all courses being at the 6000 level.

Doctoral students may not enroll for 5xx7 and 5956 courses (except for 5957 "Topic in" courses); they must choose from the regular graduate-only series of 5000, 6000, and 7000 courses, with at least one-half of all courses being at the 6000 and 7000 levels.

Limitation on 5xx7 and 5956 Courses – No more than 30 percent of all courses taken in any program may come from the 5xx7 / 5956 series. Some doctoral programs disallow 5xx7 and 5956 courses.

Independent Studies, Problems, and Workshops – Students who wish to pursue individual studies, problems, or workshops of special interest may enroll for these courses provided that the topic for study has been defined and approved by the professor and the student's advisor. Under no circumstances should registration for independent studies, problems, or workshop courses be used to attend a course with a different number or title at any level of course classification.

Limitations on Independent Studies, Problems, and Workshops – No more than 30 percent of the semester hours for a graduate degree program may be taken in independent studies, problems, or workshops or in any combination of these types of courses.

Graduate Course Load – The full-time course load for graduate students is nine graduate credit hours. Graduate course loads in excess of 15 hours require approval of the departmental chair and dean of the School of Graduate Studies.

Graduate Assistant and Tuition Scholars Course Loads – Full- and half-time graduate assistants and tuition scholars are required to take a minimum of nine semester hours of graduate credit each semester. Full-time graduate assistants and tuition scholars may not exceed 13 graduate-level credits each term; half-time graduate assistants may not exceed 15 graduate-level credits each term. Graduate assistants and tuition scholars may take more than 15 semester hours only by approval of the departmental advisor and the dean of the School of Graduate Studies. Requests for exceptions to this policy will be decided individually through consultation with the graduate coordinator and with the approval of the dean of the School of Graduate Studies prior to the beginning of the term.

Courses for Graduate Assistants – Graduate Assistants are required to register for the following courses during fall and spring terms, as appropriate to their assigned responsibilities in teaching, research, or administration: 5019 Supervised Experience in Teaching, 5029 Supervised Experience in Research, or 5039 Supervised Experience in Administration.

Class Attendance – Class enrollment represents a contract between faculty and students. Students are expected to attend classes regularly and provide faculty members with a reason for any absence. A complete policy statement regarding class attendance appears in the student handbook, *Spectrum*, which is included in the ETSU Telephone Directory

and is available from the Office of the Vice President for Student Affairs.

Auditing Courses – Students are permitted to enroll in regular university courses as auditors. Registration fees are the same for audit as for credit. Regular attendance is required. Audit enrollment will not be considered part of the minimum credits required for full-time enrollment. Audit enrollment will be counted in determining overloads.

After the published “Last Day to Add a Course” students may not change their enrollment status in a course from credit to audit or from audit or credit.

Instructors may administratively drop auditors for unsatisfactory class attendance.

Enrollment of Disabled Persons and Persons over 60 Years of Age – (a) Audit Enrollment. Persons suffering from a permanent disability that totally incapacitates them from employment and persons 60 years of age or older may audit courses without the payment of fees. (b) Credit Enrollment. Disabled persons described in (a) above and persons 65 years of age or older may enroll for credit by payment of a service fee required to defray the cost of record-keeping.

Enrollment of such disabled persons and persons 60 years of age or over is restricted to those who are domiciled in Tennessee and may be further limited or denied on an individual classroom basis according to space availability. Acceptable documentation of disability and age is required. Enrollment in classes offered through the James H. Quillen College of Medicine is not included in the provision.

Adding a Course – A course(s) may be added through the late registration/late add period without special permission, unless the course has reached the established maximum enrollment. To add any class that has reached the enrollment limit requires permission of the instructor and department chair. After the late registration/late add period, special permission must be obtained from the instructor, the department chair, the dean of the School of Graduate Studies, and the registrar and may be granted only in extenuating circumstances.

Dropping a Course – A course(s) may be dropped during the first eight calendar weeks of a regular semester. Courses dropped during the first four weeks will not appear on the student’s permanent record. Students who drop a course after the fourth full week of classes through the eighth calendar week will receive a grade of “W”. (During the summer session or when courses do not conform with established term dates, this

schedule is adjusted appropriately to fit the condensed time frames. Consult the Schedule of Classes for exact dates.)

After the eighth week a student may not drop a course, except where verifiable extenuating circumstances can be demonstrated. A petition for a late drop may be presented by the student for consideration to the appropriate dean. Verifiable extenuating circumstances may include illness, accidental injury, or other appropriate reasons. A course may not be dropped if there is an unresolved charge of academic misconduct.

If approved by the dean, the student will receive a grade of “W” (Withdrawn) or “WF” (Withdrawn-Failing), as assigned by the instructor of the course. All approved petitions for late drops must be received in the Office of the Registrar no later than 4:30 p.m. two days before the end of classes for all academic terms. Under no circumstances will a student be permitted to drop a course after that time.

Change of Field of Study – Students seeking to change their field of graduate study from one program to another must formally apply to the new graduate program. The student is responsible for ensuring that all admissions materials required by the new program are on file in the School of Graduate Studies prior to any program deadlines. Students must resign from the program in which they are currently enrolled prior to accepting admission into the new program. Students seeking to change concentrations within a program may do so by completing a Change of Program of Study form, which can be obtained from the School of Graduate Studies.

Withdrawal from the University – Students withdrawing from the university—discontinuing matriculation in the university— during the first eight weeks of classes will receive a grade of “W” in all courses. Withdrawals from the university after the eighth week will be recorded with “W” or “WF” at the discretion of the instructor. (During the summer semester, or other shortened terms, this schedule is adjusted appropriately to fit the condensed time frame.) All requests for withdrawal must be received in the Office of the Registrar no later than 4:30 p.m. two days before the last day of classes of any academic term. Under no circumstances will a student be permitted to withdraw from the university after that time.

A student who does not withdraw by the official procedure will receive an “F” for each course. (Consult the Schedule of Classes for more details.)

Academic Requirements

Grades

Grades given in the School of Graduate Studies carry the following meaning and quality points:

Grade	Grade Meaning	Quality Points per Hour
A	Clear excellence	4.0
A-		3.7
B+		3.3
B	Satisfactory performance	3.0
B-		2.7
C+		2.3
C	Minimum passing grade	2.0
F	Failed	0
S	Satisfactory	0
SP	Satisfactory Progress	0
U	Unsatisfactory	0
W	Withdrawal	0
WF	Withdrawal Failing	0
AU	Audit	0
I	Incomplete	0

To remain in good standing a graduate student must maintain an overall grade point average of 3.0 (B) or better. Graduate credit will be given for grades of "A", "A-", "B+", "B", "B-", "C+", and "C" in graduate level courses. Graduate credit is not awarded for Pass/Fail grades. Grades of P or F do not count toward degree requirements. All graduate course grades earned at East Tennessee State University by a student will be used in computing the grade point average. An overall average of 3.0 is required for admission to candidacy and for graduation.

"S," "SP," and "U" Grades – The letter grades of "S" (satisfactory completion), "SP" (satisfactory progress) and "U" (unsatisfactory) are given for Readings and Research, Capstone Projects, Thesis, and Dissertation. A grade of "S" carries graduate credit and indicates satisfactory completion of the course. Each program must specify the number of hours required for Thesis/Dissertation or Readings and Research. Degree completion requires an "S" on the most recent hours associated with Thesis/Dissertation or Readings and Research. "SP" indicates progress toward project or research completion, but carries no credit. This grade does not affect the student's GPA. Students who receive an "SP" must, in subsequent semesters (including summer), enroll in additional hours of Thesis/Dissertation or Readings and Research until the requirements are completed. The "U" grade carries no credit and indicates unsatisfactory progress toward research or project completion. Students who receive a "U" must enroll for the course the next semester, including summer. The first "U" does not affect the GPA; the second "U" is equivalent to an "F."

Incomplete Grades – A grade of "I" (incomplete) indicates that a student was passing the course at the end of the semester, but due to circumstances beyond the student's control, was unable to complete the course requirement. It also indicates that the student has received consent from the instructor to complete the work for which an "I" is assigned. The "I" grade cannot be used to allow a student to do additional work to raise a deficient grade or to repeat a course. An "I" grade must be removed no later than one calendar year from the time the grade is awarded. Time extension requests for removal of "I" grades must be submitted to and approved by the dean of the School of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines noted above will be converted to an "F." When an "I" grade converts to an "F" after one calendar year, the GPA is adjusted retroactively;

consequently, a student may be subject to dismissal without a probationary term. A student cannot withdraw from or drop a course after a grade of "I" has been assigned or after one year has elapsed. To remove an "I" grade, the student must complete the work independently and must not register for the course a second time or attend the same course at a later time in order to complete the course requirements.

Repeating a Course – If a student chooses to repeat a course, all grades earned are computed in the grade point average. The grade earned on the repeat does not replace the original.

Grade Reports and Appeals – Grade reports are available through *GoldLink* to all students who complete registration each term. Academic departments are required to retain grade documentation for a period of one year. Specific student concerns regarding academic records, other than the Grade Appeal process described in the Student Handbook (Spectrum), must be addressed within one academic year from the date of posting of grades for the term in question.

Academic Probation – To remain in good standing, a graduate student (degree or non-degree), must maintain an overall grade point average of 3.0 (B) or better on all graduate work attempted. In order to graduate, students must have a minimum 3.0 grade point average overall and on the program of study. When the cumulative grade point average falls below 3.0, the graduate student will be placed on academic probation. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, the dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study at East Tennessee State University or continued on probation. No student will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of a second probationary semester a student whose cumulative grade point average is still below 3.0 will be dismissed from graduate study. A student will be removed from probationary status upon attaining a cumulative 3.0 grade point average. When an "I" grade converts to an "F" after one calendar year, the GPA is adjusted retroactively; consequently, a student may be subject to dismissal without a probationary term.

Dismissal – Students may be dismissed from the School of Graduate Studies for such reasons as academic misconduct, failure to meet conditions of admission, failure to meet a requirement of the program, or for exceeding the allowed number of probationary semesters.

Reinstatement – Students who have been dismissed from the School of Graduate Studies for academic reasons may address a written request for reinstatement to the chair of their department of major. The request should include reasons why the reinstatement should be considered.

The department will review the request for reinstatement and make recommendations to the dean of the Graduate School. If the request is denied at the departmental level, the student may then direct a written appeal to the dean of the Graduate School, and a final decision will be made in accordance with policies established by the Graduate Council.

Residency Requirements

The residency requirement is primarily to provide doctoral students with significant time for sustained participation with peers and faculty members in scholarly and creative activities. Each doctoral degree program specifies how these residency requirements can be fulfilled. Nondoctoral graduate degree students may be required to complete one or more semesters of full-time study as determined by the degree program. Students should consult program requirements for details on specific residency requirements.

Transfer of Credit

Students may petition for the transfer of a maximum of nine semester hours of graduate credit from ETSU or other regionally accredited U.S. and approved international institutions, if grades of “B” (or equivalent) or higher were received (“B-” grades do not transfer.) Students may be required to submit documentation as to course content and duration of course prior to transfer credit being approved. ETSU coursework solely is used to compute the grade point average; non-ETSU transfer work is not computed in the GPA.

All non-ETSU transfer credit must be completed prior to the term of graduation so that the transfer process can be completed in a timely manner early in the graduation term. Transfer of credit may not be initiated after the graduation intent deadline and official transcripts must be received by the midpoint of the graduation term.

The degree program time limit (matriculation limit) will begin with the registration date of the first course applied to the degree requirements, including transferred courses. Credit earned prior to the degree time limitations specified in this catalog will not be approved for transfer and transfer credit cannot be revalidated if it later exceeds the matriculation limits.

Credit cannot be transferred from a completed degree program into a current degree program. Extension or continuing education hours will not be transferred for credit. In general, credit earned at international institutions cannot be transferred, and petitions to transfer international credit are reviewed only if accompanied by a professional course-by-course evaluation.

Extension and Correspondence

All work completed at any approved ETSU site is residential and not extension credit. No correspondence work can be applied to any graduate program at East Tennessee State University.

Experiential Learning Credit

No graduate credit can be awarded for experiential learning that occurs prior to admission into a graduate program and which has not been under the supervision of the institution.

Institutional Review Board (IRB)

Institutional Review Board (IRB) – All research involving human subjects must be approved by the East Tennessee State University Institutional Review Board prior to initiation of the research. IRB approval is necessary to protect the rights of human subjects involved in physical, psychological, or social research. Following approval of the proposed research by the review board, the subject involved must be informed of the study and consent to participate. The application forms for research involving human subjects and review of such research projects are available in the Office of Research and Sponsored Programs, 1110 Seminole Drive.

Family Educational Rights and Privacy Act

East Tennessee State University complies with the Family Educational Rights and Privacy Act of 1974. This act was designed to protect the privacy of education records and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings.

ETSU contracts the publication of a directory in the fall which shows students’ names, addresses (e-mail, home address, and campus box), major, and phone number. In addition, ETSU may release other “directory information.” Other “directory information” is defined as: date and place of birth, dates of attendance, classification, previous institution(s) attended, awards, honors (includes Dean’s list), degrees conferred (including dates), and sports participation information.

This information will only be released if the university feels it is in the best interest of the student to do so. This is usually done to assist in students’ transfer to other institutions or in obtaining employment. If, however, students prefer not to have these items released, they may submit a nondisclosure form to prevent disclosure of all or part of this data. This form is available at the Office of the Registrar and must be submitted not later than the published last day to add a course for the term. A new form for the nondisclosure must be completed each academic year. A form submitted the last term a student enrolls will remain in effect until the student re-enrolls.

The official university procedure is available for student inspection in the Sherrod Library (Information Desk), the Office of the Vice President for Student Affairs, and the Office of the Registrar.

Timetable for Graduate Study

Required Action	Date of Completion
1. Application for admission to the School of Graduate Studies.	1. See the Academic Calendar in this catalog to find deadlines for both international students and U.S. residents.
2. Test Scores TOEFL or IELTS (international students) GMAT (M.B.A. and M.Acc. students) GRE (if required by major department)	2. TOEFL/IELTS/GMAT/GRE should be submitted with the application.
3. Consultation with departmental advisor.	3. Before registration and at least once per term.
4. Transfer of graduate credits earned at other institutions or postgraduate credits earned at ETSU.	4. After nine hours in the graduate program have been completed.
5. Preliminary and qualifying examinations.	5. Check with advisor for requirements and dates.
6. File application for candidacy, approved program of study, and committee form with the School of Graduate Studies.	6. For master's students, following completion of 9-12 hours in the major with a 3.0 average and no later than the semester prior to the final semester of study. Doctoral students should consult the appropriate section of this catalog.
7. File intent to graduate, clear records, and pay fees for graduation.	7. Before the end of the second week of the final semester of study.
8. Final examination and/or defense of thesis or dissertation.	8. During the last semester of study and prior to the date specified in the Academic Calendar.
9. Submit review copies of thesis or dissertation to the dean of the School of Graduate Studies.	9. Prior to date specified in the Academic Calendar.
10. Submit final copies of thesis or dissertations, to the School of Graduate Studies.	10. Prior to date specified in the Academic Calendar.

Time Limits*

Certificate	4-6 years
Master's Degree	6 years
Specialist Degree	5 years
Doctoral Degree	7 years
	(5 years for persons holding Ed.S.)

*Time for completion of the degree is counted from the date of registration for the first course applied toward the degree requirements, including transfer work.

Note: All forms for the required steps outlined above are available on the web at: <http://www.etsu.edu/gradstud/index.htm> and in the Graduate Studies office.

Degree and Graduation Requirements

Master's Degree Requirements

The specific course and degree requirements for the areas of graduate study leading to a master's degree are defined in the various school and department sections of this catalog.

Master's degree programs, including professional degrees, should include curriculum components that demonstrate the importance of research and writing skills in graduate education.

The School of Graduate Studies requires that all graduate programs introduce students to serious research opportunities. Regardless of whether the thesis or non-thesis option is elected, students are required to enroll in a departmental course which introduces them to the tools and methods of scholarly research.

Master's degree programs will be offered through two options (not all programs offer both options):

- A. **Thesis option** – minimum of 30 credits hours of graduate coursework (including at least three hours of credit for the thesis).
- B. **Non-thesis option** – minimum of 33 credit hours including a research requirement to be satisfied by one or more courses which introduce the student to the tools and methods of research and scholarly activities and a writing requirement on a topic in the student's major field which conforms to the style and standards of the discipline.
 - a. Courses designated to satisfy the research requirement must be approved by the Graduate Council.
 - b. The writing requirement must be approved by the Graduate Council.

Culminating Experience

All master's degree programs should involve a culminating experience that includes an integrating activity and a comprehensive evaluation of the student's performance:

1. The integrating activity is intended to help students synthesize knowledge and skills acquired throughout the degree curriculum. The form of this activity may vary according to the particular discipline and may or may not involve academic credit. Examples include, but are not limited to, a thesis, analytical essay, artistic presentation, practicum, capstone project, and team consulting project. Departments and/or graduate program offices shall identify in the graduate catalog the integrating activity provided in each degree.
2. A comprehensive evaluation of the student's performance should include a written or oral examination or evaluation to determine whether the student has achieved mastery of his or her discipline. Assessment of a student's performance shall be made by a committee established for that purpose consisting of a minimum of three ETSU graduate faculty members. Experts from outside the university are also permitted to serve on such committees, with approval from the dean of the School of Graduate Studies. The committee's written assessment of the student's performance shall become a part of the student's permanent academic records.

The student's performance in the final examination or evaluation may be classified into one of three categories. The student may (1) pass; (2) fail with no opportunity for re-examination or re-evaluation; or (3) fail with an opportunity for further study and re-examination by the committee. The nature of such further study and a schedule for re-examining or re-evaluating the student's performance will be established by the committee. A second failure by any candidate will result in the student's dismissal from the graduate program.

The format of the final examination and standards for the three categories of performance must be approved by the Graduate Council and should be included in the graduate catalog along with other degree requirements.

Advisory Committee

During the period before candidacy, graduate students are advised by his/her graduate program coordinator or advisor as assigned at the time of admission. Students should form his/her graduate advisory committee no later than the second semester in which coursework is undertaken. For students in a thesis option, the advisory committee also serves as the thesis committee and is responsible for guiding the student through the thesis research and writing, as well as accepting or rejecting the manuscript. The committee will assist the candidate in planning his or her program of study and research. It must be composed of at least three faculty who hold graduate faculty status; the committee chair must hold full or associate status. In warranted circumstances, a fourth committee member who does not have graduate faculty status may be added if the dean of the School of Graduate Studies approves the individual for a temporary graduate faculty appointment.

The advisory committee is responsible for administering the comprehensive examination to the master's candidate and certifying that the candidate has completed all requirements in the program for the master's degree.

If changes in the composition of the advisory committee are needed, an approval form available in the Graduate Studies office must be completed. It requires signatures of the retiring member(s), replacement member(s), the committee chair, the department chair, and the dean of the School of Graduate Studies.

Admission to Candidacy and Approval of the Program of Study

Admission to the School of Graduate Studies, and the approval to pursue a degree program, does not in any way imply that a student is admitted to candidacy for the master's degree. To be admitted to candidacy the student must:

1. Remove all conditions required at the time of admission by the School of Graduate Studies.
2. Complete at least one semester (9-12 hours) of study following admission to the School of Graduate Studies.
3. Meet the specific requirements of the major department.
4. Have an overall GPA of 3.0 and be in good academic standing.
5. Submit the completed forms for admission to candidacy and an approved program of study to the dean of the School of Graduate Studies.

Ideally, the program of study is filed well in advance of the published deadline. When the application for candidacy is approved, the student may be considered a candidate for the graduate degree. When the program of study is filed with the School of Graduate Studies after the published deadline, graduation will be delayed until all program requirements have been verified.

Change in Program of Study – Changes in the planned program of study for candidacy must be approved by the dean of the School of Graduate Studies. Forms for program changes are available in the Graduate Studies office or through its web site.

Thesis Process

All students who select this option will register for the appropriate thesis course, undertake a research project, and write a thesis. The thesis topic will be selected by the candidate with the advice and approval of the thesis director and committee. The student must prepare a prospectus describing the research problem, its full limits, and the research methods. A copy of the prospectus will be given to each member of the student's committee. Changes in the prospectus may be made at the committee's discretion, with the consent of the student. After the thesis topic has

been researched and written, and approved by the advisory committee members, the oral defense must be scheduled with the School of Graduate Studies. Copies of the thesis should be distributed to committee members at least one week prior to the oral defense. Following successful completion of the defense, the thesis must be prepared in final form, reviewed by the chair of the advisory committee, and submitted to the dean of the School of Graduate Studies for review and approval through <http://etd-submit.etsu.edu>.

Submission of the Thesis – Students must submit theses in the format prescribed at the time of submission. All students submitting theses and dissertations must pay a microfilming fee. Students seeking exemption from electronic submission of the thesis will still be responsible for microfilming. More detailed instructions are available from the School of Graduate Studies.

The School of Graduate Studies publishes a Guide to the Preparation of Theses and Dissertations, available from <http://www.etsu.edu/gradstud>.

Graduate Faculty Representation at Thesis Defenses – The defense of the thesis is a formal gathering at which the master's candidate presents and defends her or his research to members of the university community. The defense is a capstone event in the development of graduate students as scholars, professionals, or future teachers and must entail open and fair exchange of scholarly views. A member of the graduate faculty from outside the candidate's committee and department must be present at the defense to monitor the process.

The procedure to be followed in scheduling an oral defense and the format for the graduate faculty representative's narrative report are available in the Graduate Studies office. The defense must be scheduled according to dates specified in the Academic Calendar published in this catalog and in the Schedule of Classes Bulletin.

Education Specialist Degree Requirements

Requirements for the Ed.S. degree are included under the Department of Educational Leadership and Policy Analysis in this catalog.

Doctoral Degree Requirements

Requirements for the Ph.D. degree are included under Biomedical Sciences in this catalog.

Requirements for the Au.D. are included under the Department of Communicative Disorders in this catalog.

Requirements for the Ed.D. degree are included under the Department of Educational Leadership and Policy Analysis in this catalog.

Requirements for the D.S.N. are included under Nursing in this catalog.

Graduation

Credits Earned Above Requirements for a Degree

When students earn credits in addition to those required in the planned program of study, a request may be made to the dean of the School of Graduate Studies to have the extra coursework defined on the transcript as post-degree credit. The request must be made prior to awarding of the degree and cannot be so defined once the degree is awarded. The School of Graduate Studies will not interpret or alter the transcript once the degree is awarded.

Required GPA

In order to graduate, students must have a minimum 3.0 grade point average overall and on the program of study for all degrees.

Intent to Graduate

Students must file an Intent to Graduate Form with the School of Graduate Studies no later than the end of the second week of the semester in which the student expects to complete the requirements for a graduate degree. If the student does not graduate in that term, he or she must complete and submit a new Intent Form before the published deadline.

Matriculation Limits

The time limit for the use of credit toward a certificate is four to six years. The time limit for the master's degree is six years. For the education specialist degree, the time limit is five years from the date of enrollment in the earliest course applied toward the degree, including transferred courses.

The time limit for completion of the Ed.D. program by a student who holds the Ed.S. degree or equivalent is five years from the date of enrollment in the earliest course applied toward the degree. The time limit for completion of the doctoral program by students who began his/her programs after a bachelor's or master's degree is seven years from the date of enrollment in the earliest course applied toward the degree.

Revalidation of ETSU Coursework that Exceeds Matriculation Limits – It is the department's responsibility to recommend to the School of Graduate Studies one of the following actions for revalidating course content in each instance that exceeds matriculation limits. The department may:

1. Examine the student (orally or in writing) and report the results to the School of Graduate Studies.
2. Design an independent study if no course currently exists by which the student may update course content.
3. Have the student repeat the outdated course.
4. Have the student complete additional coursework.

This procedure may not be used to revalidate course work for transfer purposes when the course already exceeds the matriculation limit at the time of application.

Graduation Instructions

The School of Graduate Studies publishes a Graduation Instruction Sheet for each term which provides all deadlines and instructions for meeting graduation requirements.

Expenses and Financial Aid

Tuition and Fees

No tuition and fee bills are mailed to students. Account statements are available on *GoldLink Online*. Tuition and fees of the university are subject to change at any time by the Tennessee Board of Regents. All fees listed are subject to change without notice by the Tennessee Board of Regents.

Application Fee – All applications for admission must be accompanied by a \$25 domestic, \$35 international, application fee. This fee is nonrefundable.

Graduate In-State Tuition – \$222 per semester hour, in addition to activity and access fees, not to exceed \$2,103 per semester (except during Summer Term. See Summer Schedule of Classes.).

Graduate Out-of-State Tuition – \$344 per semester hour, in addition to activity and access fees, not to exceed \$3,966 per semester (except during Summer Term. See Summer Schedule of Classes.).

Auditing Fees – These fees are the same as regular tuition.

Pre-Summer – The university offers a three-week pre-summer between the end of spring semester and the beginning of summer term. Students may enroll for concentrated course offerings, special courses, and workshops during this period. Maintenance fees will be assessed by the credit hour.

Fees for Summer Semester – The summer semester is divided into two sessions, each five weeks in duration. Students may enroll for either session separately or for both sessions at the beginning of the summer term. If students who have registered for first-session courses decide later to enroll for second-session courses, they may do so by adding and paying for such courses on or before the second session begins. Summer maintenance fees are assessed per credit hour with no maximum.

In-State and Out-of-State Tuition

Regulations for Classifying Students Excerpted from TBR Policy No. 3:05:01:00

The Graduate School must classify all applicants for tuition purposes based on all available information. The following regulations guide this process.

Intent – It is the intent that the public institutions of higher education in the State of Tennessee shall apply uniform rules, as described in these regulations and not otherwise, in determining whether students shall be classified “in-state” or “out-of-state” for fees and tuition purposes and for admission purposes.

Rules for Determination of Status – (1) Every person having his or her domicile in this State shall be classified “in-state” for fee and tuition purposes and for admission purposes.

(2) Every person not having his or her domicile in this State shall be classified “out-of-state” for said purposes.

(3) The domicile of an unemancipated person is that of his or her parent. Unemancipated students of divorced parents shall be classified “in-state” when one parent, regardless of custodial status, is domiciled in Tennessee.

(4) The spouse of a student classified as “in-state” shall also be classified “in-state.”

Out-of-State Students who are not required to pay Out-of-State Tuition – Part-time students who are not domiciled in this State but who are employed full-time in the State, or who are stationed at Fort Campbell pursuant to military orders, shall be classified out-of-state but shall not be required to pay out-of-state tuition. This shall apply to part-time students who are employed in the State by more than one employer, resulting in the equivalent of full-time employment.

Presumption – Unless the contrary appears from clear and convincing evidence, it shall be presumed that an emancipated person does not acquire domicile in this State while enrolled as a full-time student at any public or private higher educational institution in this State, as such status is defined by such institution.

Evidence to be Considered for Establishment of Domicile –

If a person asserts that he or she has established domicile in this State he or she has the burden of proving that he or she has done so. Such a person is entitled to provide to the public higher education institution by which he seeks to be classified or reclassified in-state, any and all evidence which he or she believes will sustain his or her burden of proof. Said institution will consider any and all evidence provided to it concerning such claim of domicile but will not treat any particular type or item of such evidence as conclusive evidence that domicile has or has not been established.

Definitions – (1) “Public higher educational institution” shall mean a university or community college supported by appropriations made by the Legislature of this State.

(2) “Residence” shall mean continuous physical presence and maintenance of a dwelling place within this State, provided that absence from the State for short periods of time shall not affect the establishment of a residence.

(3) “Domicile” shall mean a person’s true, fixed and permanent home and place of habitation; it is the place where he or she intends to remain, and to which he or she expects to return when he or she leaves without intending to establish a new domicile elsewhere.

(4) “Emancipated person” shall mean a person who has attained the age of eighteen years, and whose parents have entirely surrendered the right to the care, custody, and earnings of such person and who no longer are under legal obligation to support or maintain such deemed “emancipated person.”

(5) “Parent” shall mean a person’s father or mother. If there is a non-parental guardian or legal custodian of an unemancipated person, then “parent” shall mean such guardian or legal custodian; provided, that there are not circumstances indicating that such guardianship or custodianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person.

(6) “Continuous enrollment” shall mean enrollment at a public higher educational institution or institution of this State as a full-time student, as such term is defined by the governing body of said public higher educational institution or institutions, for a normal academic year or years or the appropriate portion or portions thereof since the beginning of the period for which continuous enrollment is claimed. Such person need not enroll in summer sessions or other such intersessions beyond the normal academic year in order that his or her enrollment be deemed “continuous” notwithstanding lapses in enrollment occasioned solely by the scheduling of the commencement and/or termination of the academic years, or appropriate portion thereof, of the public higher educational institutions in which such person enrolls.

Appeal – The classification officer of each public higher educational institution shall be responsible for initially classifying students “in-state” or “out-of-state.” Appropriate procedures shall be established by each such institution by which a student may appeal his or her initial classification.

Effective Date of Reclassification – If a student classified out-of-state applies for in-state classification and is subsequently so classified, his or her in-state classification shall be effective as of the date on which reclassification was sought. However, out-of-state tuition will be charged for any quarter or semester during which reclassification is sought and obtained unless application for reclassification is made to the admissions officer on or before the last day of registration of that quarter or semester.

Classification of Employees, Their Spouses and Children, and Graduate Assistants for Purposes of Fees and Tuition (TBR Policy No. 5:01:04:10) – (1) All regular full-time employees, their spouses and children, shall be classified as in-state students for purposes of fees and tuition when enrolled in courses at any institution in the State University and Community College System. (2) Graduate assistants shall be classified as in-state students for purposes of fees and tuition at the institutions where they are pursuing graduate studies as graduate assistants.

Housing Fees

(2004-2005 rate, subject to change)

Undergraduate Residence Halls/Efficiency Apartments

Deposit \$100
 Rent (double occupancy, per person, per semester) \$935-\$1,105
 (includes electricity, water, telephone, data access, and cable TV hookup)
 Private rooms available at additional cost.

Buccaneer Village (Family and Graduate Housing)

Deposit \$150

Rent

Graduate Efficiency (per semester) \$1,355
 One-Bedroom (per semester) \$1,468
 Two-Bedroom (per semester) \$1,648
 (includes water, telephone, data access and cable TV) Electricity is an additional charge. Monthly rates/deferred payments are available if eligible.

Buccaneer Ridge Apartments

Deposit \$150

Two- and Four-Bedroom Apartments

(per person, per semester) \$1,552-\$2,115
 Single occupancy bedrooms for sophomores and above with 9- and 12-month individual leases available. Telephone, data access, and cable TV hookup are furnished. Electricity and water are extra. Gated community, fully furnished including washer/dryer. Monthly rates/deferred payments are available if eligible.

General Expenses

Board

University Cafeteria (estimate per semester) \$950-\$1141+tax

Books

Estimate per semester \$300-\$400
 Other, if used books are exchanged
 (estimate per semester) \$300
 Some books can be used for a full year. In some instances used books are available.

Debt Service Fee \$7 per credit

Debt Service Fee \$80 maximum

Student Activity Fee-All students

registered for credit (Fall & Spring Only) \$4

General Access Fee – Per Hour \$38 per credit
 (nonrefundable)

General Access Fee – Maximum \$269.50
 (nonrefundable)

(Portions refunded at the end of the semester upon surrender of the card to the Comptroller's Office.)

(* Fees are subject to state and local sales tax.)

Digital Media Fee

Effective with the 2003 Summer term, a Digital Media Enhancement Fee of \$100 per semester hour will be applied to all DIGM courses for all students, with the following exception: A phase-in period will apply to two groups of existing matriculated Digital Media majors—undergraduate students who are designated on SIS Screen 114 for Spring Term 2003 as a Digital Media major; and graduate students admitted to the Digital Media concentration prior to or for Spring 2003. Students subject to the phase-in period will pay the following fees per semester hour: Fall 2004, \$75; Spring 2005, \$100.

Academic Common Market

The Academic Common Market is an interstate agreement among southern states for sharing academic uncommon programs. Participating states are able to make arrangements for their residents who qualify for admission to enroll in specific programs in other states on an in-state tuition basis.

To enroll as an Academic Common Market student, you must (1) be accepted for admission into an ETSU program to which your state has obtained access for its residents through the Academic Common Market; (2) obtain certification of residency from the Common Market Coordinator in your home state. Contact the State Coordinator for certification information; (3) Process certification in ETSU Office of Admissions (undergraduate programs) or Graduate Office (graduate programs). **Important — Certification must be processed by last day of registration (official census date) of semester in order to be effective with that semester. Certification processed after that date will be effective with the next semester.**

***Note:** Programs are subject to change by the university, the states, or the Southern Regional Education Board without notice.

Approved Program in Graduate Studies

Master of Science in Engineering Technology

Master of Science in Environmental Science

Master of Arts in Reading

Master of Arts in Reading (*Storytelling Option*)

Master of City Management

Master of Public Management

Master of Science in Clinical Nutrition

State

Virginia
 Kentucky

Florida
 Virginia

Alabama
 Virginia

Alabama
 Florida

Georgia
 Kentucky

Maryland
 Oklahoma

South Carolina
 Texas

Delaware
 Delaware

South Carolina

Business Course Fee

Students taking business courses that are not a part of the general education core pay \$20 per credit to fund the high cost and high demand for courses.

Music Fee

Private instruction in voice, piano, organ, and wind instruments, etc., one half-hour lesson per week \$100.00

Materials Fees

Biology Material Fee \$15.00

Chemistry Material Fee \$18.00

Physics Material Fee \$20.00

Complete Fee Schedule

http://www.etsu.edu/comptrol/bursar_tuition_and_fees.htm

Returned Checks

Acknowledged bank errors excepted, students will be charged \$20 for each check (regardless of amount) that is returned unpaid by his/her bank. See also the sixth paragraph under Regulations Governing Fee Payment.

General

Late Registration \$100

Post Office Box Rental Fee (per semester) \$10

Regulations Governing Fee Payment

The university operates on the semester system and on a cash basis. Students are required to pay all university fees when registering at the beginning of each semester.

The student ID card is used for admission and identification for athletic contests, social functions, and other activities during the semester.

The engagement of a room in the dormitory is for the full year, payable on a semester basis. However, if a student enters the residence hall after the semester begins, the charges are prorated for the remainder of the semester. Dormitory rent may be paid on installment if the student does not have sufficient grant, scholarship, or loan funds to pay all registration fees including dormitory rent at the beginning of the semester. There is a \$5 charge for this service.

Students shall be held responsible for damages, breakage, or loss of university property. The room reservation fee of \$100 is retained as a room breakage deposit for all living in the dormitories.

Students may not re-enroll, graduate, or receive a transcript of his/her record until all indebtedness to the university is removed.

A student's registration is not completed until the university receives payment in the amount of fees due the university. If payment is made with a check that is not honored (acknowledged bank errors excepted), a late fee will be charged when the student redeems the unpaid check. The late fee assessed will be in accordance with the catalog schedule of charges for late registration. If the check is not redeemed in 10 days, the student's class schedule may be cancelled.

Deferred Payment Plan

Although all charges are due and payable at the beginning of each term, students in good financial standing at ETSU may request the deferment of up to 50 percent of his/her tuition, fees and housing for fall and spring semesters. The deferment of fees is not available for summer terms.

To be eligible for the Deferred Payment Plan, each participant must be prepared to make a minimum down payment of 50 percent of the tuition, fees and dorm rent. A student who has failed to make timely payments in a previous term may be denied the right to participate in the Deferred Payment Plan in additional enrollment periods.

The amount deferred will be payable in two monthly installments. For the fall term, installment payments are due by October 1 and November 1. For the spring term, installment payments are due by March 1 and April 1. Participants in this plan must apply all financial aid received, including student loans, toward payment of tuition and room before a deferment will be considered.

Each participant will be charged a \$50 service fee each term to defray administrative costs. This fee is payable along with the 50 percent down payment on or before the registration payment deadline listed in the Schedule of Classes. An additional late payment charge of \$25 will be assessed for each installment not paid on or before the 10th day of the month that a payment is due.

Dropping a course or withdrawing from the university will not remove charges. Students who drop or withdraw are required to complete the deferred payment. Any refund due under the regular refund policy will be credited to the unpaid balance.

Refund Policies

Refund policies for maintenance fees, out-of-state tuition, and debt service fees are outlined below.

Change of a Student's Status Which May Permit a Refund – Change in a full-time student's schedule which results in the reclassification to a part-time student; change in a part-time student's schedule which results in a class load of fewer hours.

Situations Which May Permit a Refund – Dropping a course or courses; withdrawing from the institution; cancellation of a class by the institution; death of the student.

Refund Procedures – The refund amount for students not receiving Title IV aid is based upon the state policy listed below.

Refunds are defined as the portion of maintenance and/or tuition and university housing charges due as a rebate when a student withdraws or is expelled from the university. The amount of the refund is determined according to the schedule below.

Seventy-five percent of fees will be refunded for drops or withdrawals within 14 calendar days beginning with and including the first official day of classes or within a proportioned period for a short-term course. Twenty-five percent of fees will be refunded following the 14 calendar days through the expiration of one-fourth (25 percent) of the time covered by the term. These refund procedures are also applicable to dormitory rent. No refund will be made thereafter.

One hundred percent of fees will be refunded for classes canceled by the institution. One hundred percent of fees will be refunded for drops or withdrawals prior to the first official day of classes for the regular academic terms and prior to the beginning of summer term. One hundred percent of fees will be refunded in case of a student's death.

Return of Title IV Federal Student Aid

This requirement applies to you ONLY if: You receive federal student aid, and you withdraw prior to completing 60 percent of the period for which the aid was provided.

The new federal law requires federal aid recipients to "earn" the aid they receive by staying enrolled in college. Students who withdraw prior to completing 60 percent of the semester for which they received federal student aid may be required to return some or all of the aid they were awarded.

The new law assumes that you used the Title IV student aid to pay your institutional charges – tuition, fees, dorm room, and board. Thus, if you withdraw prior to completing 60 percent of the semester for which you were awarded aid, a pro-rata amount of your aid must be returned to the federal government.

First, the university will restore to the appropriate federal fund source a proportional share of the institutional charges that you paid. In general, the effect of this "return of Title IV aid" by the institution will be to reduce your outstanding loan balance. Second, if the amount returned by the university is not enough to repay the entire "unearned" amount of student aid according to the length of your enrollment, you will be required to return portions of the federal student aid you received to pay non-institutional charges.

Amounts that must be returned to federal aid sources, whether by the university or by you, will first be applied to your federal loans. With respect to any amount you owe after the university has returned its share, you will be permitted to repay loans based on the original terms of the loan. In the event you received a grant or scholarship from a Title IV source you may be required to return portions of the grant or scholarship. In the case of "unearned" portions of federal grants or scholarships, you will be expected to pay 50 percent of the "unearned" portion immediately.

(This policy is based on 34 CFR, Section 668.22 of Title IV of the Higher Education Act of 1965, as amended.)

Distribution Order of Refunds — Refunds will be credited back to student aid program accounts in the following order:
Title IV programs:

1. Unsubsidized Federal Stafford Loans
2. Subsidized Federal Stafford Loans
3. Federal Perkins Loans
4. Federal PLUS Loans
5. Federal Pell Grants
6. Federal SEOG program
7. Other refunds will be credited to 1) state, private or institutional aid; 2) the student.

Refund Appeals Procedure — Students contesting the refund policy may file a refund appeals form which may be obtained in the Comptroller's Office, 202 Dossett Hall. It is the student's responsibility to provide written documentation substantiating his/her reasons for the appeal. Withdrawals or reductions in course load due to personal illness/injury require a statement from a licensed medical physician stating withdrawal was necessary due to the health of the student; a death in the immediate family can be verified with a copy of the obituary. Immediate family includes spouse, child, stepchild, parent, stepparent, foster parent, parent-in-law, sibling, grandparents, and grandchildren. Other reasons must be supported by written documentation.

Refund of Residence Hall Rent – Refunds of residence hall rent after registration will be prorated on a weekly calendar basis when the student is forced to withdraw from the residence hall: (1) because of personal medical reasons confirmed in writing by a licensed physician; or (2) at the request of the institution for other than disciplinary reasons. Full refund will be made in the case of death. Withdrawals for other reasons, except disciplinary reasons, will be subject to the same 75/25 percent amounts and time periods as maintenance fees. No refund will be made under any other than the above conditions.

Refund of Residence Hall Reservations and Breakage Deposits – Full deposit will be refunded if the institution is notified a minimum of 14 calendar days prior to the first official day of registration, the student is prevented from entering the university because of personal medical reasons confirmed in writing by a licensed physician, or residence hall space is not available. Full refund will be made in the case of death.

Financial Aid

The Office of Financial Aid at East Tennessee State University provides a broad spectrum of programs to assist students in financing their college education. The university is committed to providing access to students through a variety of resources. Types of financial aid include scholarships, grants, fee waivers, fellowships, assistantships, work-study, and student loan programs.

Financial Aid is a supplement to an applicant's personal resources. Reasonable family contributions are expected. The majority of financial aid awarded at the university is based on the student's financial need. Scholarship funds are awarded based on academic merit or other criteria specified by the donor or organization managing the program. Need is defined by federal formulas and based on a student's estimated cost of attendance less any expected family contribution.

Students are encouraged to apply for financial aid as early as possible. Application must be completed each year. The Free Application for Federal Student Aid (FAFSA) is generally available January 1 for the upcoming academic year. The FAFSA provides a comprehensive review of the family's financial picture. The results, including the expected family contribution, are generated on the Student Aid Report (SAR).

All previously enrolled ETSU students must meet the ETSU Satisfactory Academic Progress Policy. Copies of this policy are available in the Office of Financial Aid or may be viewed online at <http://www.etsu.edu/finaid/sap/sap.htm>. Successful completion of attempted credits within a specific time frame is a federal requirement for continuous participation in the financial aid programs.

Financial aid programs, rules, and regulations are subject to change. Federal and state funds are conditional upon congressional appropriations and receipt of those funds at ETSU. The Financial Aid Policies and Procedures Guide accompanying the student's award letter gives additional detail on program requirements.

Counselors are available to assist students with any questions or concerns regarding their eligibility. Any applicant who has a concern which cannot be resolved between the student and a financial aid counselor may appeal to the Financial Aid Coordinator of Client Services. Any concern not resolved between the applicant and the Coordinator of

Client Services may be appealed to the Assistant Director of Financial Aid. The student may appeal to the Director of Financial Aid if none of the previous steps solved the problem.

"The Student Guide," a booklet published by the United States Department of Education, is a helpful source of information regarding the federal financial aid programs. Copies are available in the Office of Financial Aid or directly from the government.

Additional information is available from the Office of Financial Aid, P.O. Box 70722, ETSU, Johnson City, TN, 37614-1710, or by calling 423-439-4300, 800-704-ETSU (3878), or via e-mail at finaid@etsu.edu.

All financial aid is awarded without regard to race, sex, age, or disability. The majority of aid is based on financial need, which is the reasonable cost of education less reasonable support from the family as determined by the federal processor and appearing on the SAR.

Student Eligibility

Students must meet the following criteria to receive federal funds:

1. Be enrolled as a regular student, attending classes, in a degree program, or seeking teacher certification after completion of a previous degree. (An exception to this requirement is made for prerequisite coursework required for enrollment in a graduate program. Aid is limited to a one-time only 12-month period.) Special or transient students are not eligible for federal funds.
2. Be accepted for admission or continuing graduate enrollment before aid eligibility will be determined.
3. Be a U.S. citizen or eligible noncitizen.
4. If required, be registered with the Selective Service.
5. Not be in default or owe funds to the U.S. Department of Education.

Application Procedures

1. Complete the FAFSA as soon as possible after January 1 for the fall semester. Students are encouraged to complete the application electronically at <http://www.fafsa.ed.gov>. ETSU school code, 003487, should be listed on the FAFSA for the university to receive the data electronically.
2. ETSU will review the student's financial aid record electronically with the National Student Loan Data System (NSLDS).
3. If a student provides an email address on his/her FAFSA, the Federal Processor will send the student an email with an electronic link so the student can view his/her Student Aid Report (SAR) online. If an email address is not provided on the FAFSA, the Federal Processor will mail the student a one-page SAR Acknowledgment. ETSU will receive the SAR date electronically when the student lists ETSU on the FAFSA. If ETSU is not listed on the FAFSA, the student should add ETSU on his/her online SAR or send his/her SAR Acknowledgment to the Office of Financial Aid. The student is encouraged to review the SAR for accuracy. If the student is selected for verification, the student must complete the verification worksheet and submit copies of the student and/or spouse's IRS 1040 form to ETSU. The university may also request other information.
4. Scholarship applications vary according to each program. Students are encouraged to apply early and be observant of each program's individual requirements.
5. All students borrowing at ETSU for the first time from the Federal Perkins or Federal Stafford Loan Programs are required to complete entrance loan counseling. This is mandatory before receiving loan funds for the first time while attending ETSU. Entrance loan counseling must be completed at ETSU regardless if completed at another institution. Entrance and exit loan counseling may be done electronically online at <http://mapping-your-future.org/oslc>. The student must complete an online form. This form will be sent electronically to the Office of Financial Aid at East Tennessee State University, confirming completion of the required loan counseling session.

Important Dates

Early application remains the most important action in securing funds to assist with financing the student's education. The university recommends the following dates as a guideline:

1. **January 1** – As soon as possible, complete and mail the FAFSA for processing. The application will require an average processing time of four weeks.
2. **April 15** – ETSU priority deadline to receive financial aid for fall semester. All application materials must be complete in the Office of Financial Aid.
3. **November 15** – ETSU priority deadline to receive financial aid for spring semester. All application materials must be complete in the Office of Financial Aid.
4. **April 1** – ETSU priority deadline to receive financial aid for summer. All application materials must be complete in the Office of Financial Aid.

Financial Aid Satisfactory Academic Progress Policy

Federal regulations require that all student financial aid recipients make satisfactory academic progress toward achieving a degree. Progress is measured by the student's cumulative grade point average and credits earned in relation to those attempted and the length of the academic program. In order to assure that students make progress toward the degree both in terms of number of credits completed and cumulative GPA, East Tennessee State University will utilize the following Satisfactory Academic Progress Policy.

I. PROGRESS STANDARDS

- A. **PROGRESS PER AWARD YEAR:** Students must, as a minimum, receive a satisfactory grade (*) in the courses they attempt fall and spring semesters as outlined below:

When student receives financial aid based upon total fall/spring enrollment of:	The student must complete satisfactorily, between fall/spring, a total of:
24 or more credit hours	21 credit hours
18 - 23 credit hours	15 credit hours
12 - 17 credit hours	9 credit hours
6 - 11 credit hours	6 credit hours
Less than 6 credit hours	Complete all credit hours attempted

(*)For purposes of financial aid, satisfactory grades are A, A-, B+, B, B-, C+, C, C-, D+, D, S, SP or P.
Unsatisfactory grades are F, W, WF, U or I.

NOTE: Unsatisfactory grades **will not** be counted as earned credit hours, but **will** count as attempted credit hours.

- B. **CUMULATIVE PROGRESS:** Students must, in addition to the above, meet the retention standards of East Tennessee State University as outlined in the current East Tennessee State University catalog
- C. **MAXIMUM ELIGIBILITY:** Attempted credit hours: Students who have reached 150 percent of attempted credit hours toward his/her degree will become ineligible for financial aid.

II. EVALUATION PROCESS

- A. A review will be made at the end of the Spring Semester and students who did not make satisfactory academic progress will be notified.
- B. Students who receive all "I", "F", or "W" grades in courses attempted in any semester (fall, spring, summer) will be removed from financial aid, until the student has regained financial aid eligibility (see section III).

- C. Repeat courses will be counted in earned credit hours. (Note: ALL courses attempted count in total credit hours attempted.)
- D. Transfer courses recognized by ETSU will be counted in attempted and earned credit hours.
- E. Academic Fresh Start students will have his/her satisfactory academic progress evaluated on work attempted after returning to the University under the Academic Fresh Start policy.
- F. Second degree students will have his/her satisfactory academic progress calculated from the credit hours attempted beyond the first degree. Additional credit hours for the second degree coursework will be limited to the credit hours required to complete the second degree.
- G. Students classified as "Undergraduate Special" (SPU) **may** be eligible for federal financial aid; check with your Financial Aid Counselor.
- H. Students classified as "Graduate Non Degree" (SPG) are only eligible for federal financial aid for up to one year if they are enrolled in classes that are:
 1. Required for a teacher certification program (the loan limit is that of a fifth year undergraduate);
or
 2. Necessary as prerequisite courses for enrollment into a graduate program (the loan limit is that of a fifth year undergraduate).

III. REGAINING FINANCIAL AID ELIGIBILITY

- A. **SATISFACTORY PROGRESS APPEAL:**
Students who fail to meet these standards and lose eligibility for financial aid can appeal that decision to the Financial Aid Office within two weeks of notification. **The appeal must be prepared in writing on the Satisfactory Academic Progress Appeal Form, and be accompanied by appropriate supporting documents.** Reasons that may be acceptable for the appeal are:
 - (1) Serious illness or accident on the part of the student
 - (2) Death, accident, or serious illness in the immediate family
 - (3) Class cancelled by ETSU
 - (4) Other extenuating circumstances may be acceptable and will be considered.
- B. **MAKING UP DEFICIENT CREDIT HOURS WITHOUT AID:**
In the event that the student does not qualify for an appeal, he/she may be eligible to have financial aid reinstated by taking the following actions:
 - (1) Enroll in and earn the number of deficient credit hours (see chart on page 1 for credit hour requirements) in which aid was received; **and**
 - (2) Maintain a minimum 2.0 GPA for the semester average for those credit hours.

IV. APPEAL LIMITS

The maximum number of appeals any student may normally have granted is two (2). Under extreme circumstances, a third appeal may be granted, provided that the student has documented proof of the circumstances. In the case of a student who files a third appeal, the reasons for the student's two previous appeals will be reviewed and considered when making a decision. Additionally, the student's progress within the academic program will be a determining factor in third appeals.

Graduate Assistantships and Tuition Scholarships

Application Process – Students who wish to be considered for a graduate assistantship or tuition scholarship should so indicate in the

appropriate place on the degree application for admission to Graduate School. When the degree application is forwarded to the department or program, the student's qualifications for an assistantship or tuition scholarship are reviewed as part of the admission process.

Students who wish to be considered for assistantships or scholarships in programs or offices outside his/her major discipline should submit a letter of interest and a current resume directly to the office or department posting the vacancy.

The Graduate Office posts graduate assistantship and tuition scholarship positions at <http://www.etsu.edu/gradstud/gasch.htm> and vacancies at <http://www.etsu.edu/gradstud/Positions.htm>.

Applicants will not be approved for assistantships or tuition scholarships until they have been admitted to a graduate degree program and have registered for at least nine hours. International students must sit for the Oral Proficiency Interview before the contract can be approved.

Graduate Assistantships – Students receiving graduate assistantships must register for at least nine graduate hours per semester within his/her approved graduate program unless a waiver is obtained from the dean of the School of Graduate Studies. During the summer terms, graduate students on assistantships must register for a total of six hours. Out-of-state tuition is waived for graduate students who hold assistantships. All or part of the in-state tuition may be waived, depending on the level of the award. Graduate assistants may not take more than 15 hours of graduate credit per semester without prior permission from the dean of the School of Graduate Studies. Students normally do not hold a graduate assistantship for more than two years.

Tuition Scholarships – A limited number of tuition scholarships are available to qualified first-time graduate students. A tuition scholarship award waives the tuition and maintenance fees for in- and out-of-state recipients. Tuition Scholarship recipients must register for at least nine graduate hours each term and work eight hours per week at his/her assigned location.

Resignations – Graduate assistants and tuition scholars who resign his/her positions during a term must notify the Graduate School immediately upon resignation and are responsible for a prorata portion of tuition and fees accrued during that term.

Handbook for Graduate Assistants and Tuition Scholars – Additional guidelines and policies pertaining to graduate assistantships and tuition scholarships are available in the Graduate Assistant Handbook, which is available at: <http://www.etsu.edu/gradstud/pdf/ga-tshandbook.pdf>.

Minority Awards – A number of graduate assistantships are awarded, on a competitive basis, to black students who hold U.S. citizenship. The assistantships include a waiver of out-of-state tuition. Information and applications for minority awards are available from the School of Graduate Studies.

Residence Hall Assistantships – Residence hall assistantships are available to students pursuing an advanced degree. Graduate students may serve as a Resident Director where they will supervise and be assisted by an undergraduate staff. Resident Directors are responsible for the overall management of a residence hall such as staffing, counseling, group advising, program development, and housing administration.

Preference is given to those majoring in psychology, guidance and counseling, education, educational administration, and with residence life experience and/or group work of a related nature. Students must maintain nine credit hours of enrollment. Selection will be based on the above listed criteria, acceptance into the School of Graduate Studies, letters of recommendation, a personal interview, and a background check.

Appointment is for a nine-month period with the possibility of summer work when available. Remuneration includes a furnished apartment with utilities, in-state and out-of-state fee waiver and a monthly stipend. Further information and applications are available from the Department of Housing and Residence Life, ETSU Box 70723, Johnson City, TN 37614-1710.

Graduate Assistantships in the Division of Student Affairs – In addition to the Residence Hall Assistantships, approximately 20 other graduate assistantships are available through the Division of Student Affairs. These positions offer a wide range of experience and opportunities, such as the Counseling Center, the Office of Student Life & Leadership, and Campus Recreation. Students from all majors are eligible to apply, although efforts are made to match the students' abilities, interests and particular degree program with an assistantship. Most Student Affairs Graduate Assistants work 20 hours/week on a nine month contract, although exceptions do exist. For more information concerning these assistantships you may contact the Office of the Vice President for Student Affairs by phone, 439-4210, or by e-mail, LeeS@etsu.edu.

Work

The Federal Work-Study (FWS) Program offers employment opportunities. Generally, campus jobs average 10 hours per week and students are paid minimum wage.

The Regular Student Work Program (RSWP) offers employment to students not eligible for need-based, Federal Work-Study. Students may work up to 8 hours per week and are paid minimum wage.

Federal Work-Study and Regular Student Work Program job announcements are posted on the bulletin board outside the Office of Financial Aid.

The ETSU Office of Career Development has information about off-campus jobs and the Cooperative Education (CO-OP) Program. The CO-OP Program gives students the opportunity to gain work experience related to his/her academic major and career objective.

Loans

The Alumni Loan Fund – Made available by donations from alumni. Loans of up to \$250 are made to students who demonstrate financial need having a satisfactory academic record (2.0 or better). Two cosigners are required. Interest at the rate of six percent per annum will begin on the date the maker ceases to be enrolled full time at ETSU.

The George Washington Bradley Memorial Loan Fund – Established to honor the memory of Dr. Bradley, former ETSU Assistant Professor of Education and Psychology. Available funds may be loaned to worthy graduate students majoring in education, counseling, or guidance who demonstrate financial need and are making satisfactory progress in school. The repayment may be deferred until after graduation, with interest at the rate of 6 percent per annum beginning at that time.

The East Tennessee State University Loan Fund – A short-term loan fund administered by ETSU for those students having temporary needs to meet his/her educational expenses for tuition/fees. There is a processing charge, and repayment is due at least two weeks prior to the end of the semester in which the loan is made. A Short-Term Loan Application is required. A cosigner is required.

The loan fund was established by an original gift of \$1,000 from the business and professional men of Johnson City. It has been augmented with gifts from other sources, which include: a gift from Mrs. Elizabeth Allison in memory of her husband, Mr. M.H. Allison; the American Legion Auxiliary, Kings Mountain Unit No. 24, in memory of Mrs. Ferne Fisher Miller; the Business and Professional Women's District Loan Fund; the Lt. (j.g.) William C. Dunn Memorial Loan Scholarship Fund; the Ada Hornsby Earnest Loan Scholarship; the Eastern Star Loan Fund, Nolicucky Chapter 194; the Faculty Women's Club Loan Fund; the Frieberg Memorial Loan Scholarship, established by the Col. D. Henley Chapter of the U.S. Daughters of 1812; the Sidney Gordon Gilbreath Loan Fund, established in memory of the first president of the university; the Sarah Hawkins Chapter, DAR Loan Fund; an annual contribution from Home Federal Savings and Loan Association; the Johnson County Loan Fund, established by the Weitzel-McBride Chapter of the U.S. Daughters of 1812; the Jesse M. Jones Memorial by Mr. and Mrs. Doyle Jones; the Theona Main Memorial established by the East Side PTA,

Elizabethton; the Ferne Fisher Miller Memorial Loan Scholarship, established by the Col. D. Henley Chapter of U.S. Daughters of 1812; the Mae Nave Memorial Loan Fund; the William R. Rigell Memorial Loan Fund; the C.C. Sherrod Memorial Loan Fund, established in memory of the second president of the university; the P.W. Alexander Alumni Memorial Fund; the John Sevier Chapter, DAR Loan Fund; the Tennessee Students' Loan Fund, a memorial to Hortense Cocke Hayes and J. Norment Powell; the U.S. Daughters of 1812 Loan Scholarship, established by the Weitzel-McBride Chapter, the Gen. Nathaniel Taylor Chapter, and the Watauga Chapter; and the YMCA Student Loan Fund.

The Patience Myers McLain Fund – Established by the late Roy B. McLain in memory of his mother. This is a loan fund whereby needy students preparing for ministerial or social welfare work may borrow up to \$300 per semester. Repayment begins six months after the maker ceases to be enrolled full time, with interest at the rate of 3 percent per annum.

Federal Stafford Loan Program – Stafford loans are awarded based on a student's dependency status, financial need, cost of attendance, and grade level. Both undergraduate and graduate students may borrow in this program. These loans will be subsidized when based on need and the federal government will pay the interest while the student remains enrolled at least half time. Unsubsidized loans are also available based on the student's cost of attendance and other financial aid. These loans

require the student to pay or accrue the interest while enrolled, although the principal amount of the loan is deferred. Borrowers begin repaying both subsidized and unsubsidized Stafford loans at the end of at least half-time enrollment. Interest rates vary from 7 to 8.25 percent.

Federal Perkins Loan Program – Federally funded loans borrowed from the university at 5 percent interest for both undergraduate and graduate students. Repayment begins nine months after a student ceases at least half-time attendance.

Tennessee Teaching Scholars Program – A forgivable loan of approximately \$3,000 for college juniors, seniors, and post-baccalaureate students admitted to state-approved teacher education programs at a Tennessee institution of higher education. Students must pledge to teach at the public preschool, elementary or secondary level in Tennessee one year for each year the award is received. Requirements include U.S. citizenship, Tennessee residency and a cumulative GPA of at least 2.75. Apply by submitting a Tennessee Teacher Scholars Program Application to TSAC through the teacher education program at ETSU.

See the U.S. Department of Education's "The Student Guide" for details.

Veterans Affairs

To find information on Veterans Affairs, go to the Student Services section of this catalog.

STUDENT SERVICES AND RESOURCES

Regard for the student as a person, and provision of opportunities for participation in the co-curricular life of the university are basic commitments of East Tennessee State University. Dedicated, caring individuals strive to give the student a sense of belonging to ETSU. Student services include an orientation program, financial aid, housing, personal counseling, and advising to help plan a program of study or choose a vocation. Student services are available to meet the special needs of minority groups, students with disabilities, and those with specific health or academic problems.

Various student services are described below. Additional information about any of these services can be secured by contacting the Office of Student Affairs, upper level of the D.P. Culp University Center, phone 439-4210.

Adult, Commuter, and Transfer Services — The Office of Adult, Commuter and Transfer Services (A.C.T.S.) provides assistance for students who are over 23 years old, are commuting to campus or who have transferred or graduated from another college or university. A.C.T.S. helps these students figure out how to make a smooth transition to ETSU - no matter how long it's been since they were last in school. In partnership with other university offices and academic departments, A.C.T.S. will help to facilitate the smooth entry of adult, commuter and transfer students into the ETSU graduate or undergraduate community and support their continuation toward completion of their degree.

The office maintains a large selection of brochures and information about tutoring, academic programs, test-taking/study skills, financial aid, and child care information appropriate for both graduate and undergraduate students. Commuter students can get carpool applications, maps of campus, bus schedules, off-campus housing listings, and child care information. Because we know that making a successful transition means more than getting a schedule of classes, A.C.T.S. serves as a central source of student information, referral and advocacy. These services are provided through a resource network between the Divisions of Academic and Student Affairs. A.C.T.S. welcomes graduate students to join Once Again Students in School (OASIS), the student organization representing adult students on the ETSU campus.

A.C.T.S. is located on the second level of the D.P. Culp University Center in the Advisement, Resources, and Careers Center. Contact: Carla Warner, director, (423) 439-5641, ACTS@etsu.edu or visit our web site at <http://www.etsu.edu/students/ACTS/.htm>.

Advisement, Resources, and Career Center — The Advisement, Resources, and Career Center (ARC) is located on the second level of the D.P. Culp University Center next to the Bookstore, phone 439-8650. The ARC is open Monday-Friday 8:00 a.m. - 4:30 p.m.

The ARC is staffed by professionals who evaluate students' academic progress as it relates to their personal aspirations and career goals. In addition to advising students, referrals for additional academic assistance are made when necessary. The ARC is user-friendly so that students can access advisement, career and support services without ever leaving the facility. The ARC serves as a primary resource for students who have a variety of needs including those who are entering the university for the first time, those that are unsure about an academic major or career option, and those who wish to take advantage of various academic support services to enhance their classroom learning. The ARC incorporates several academic and student support services listed below.

- **University Advisement Center - Undeclared (439-5244)** — The Center offers academic advising and counseling to all students who have not declared a specific major or who are not yet ready to commit to a major at ETSU or who are taking developmental studies courses. Counselors help students understand and complete General Education requirements and assist students to identify careers and coursework that affirm their academic strengths and interests. Visit our web site at www.etsu.edu/univadvctr/uac/index.htm.

- **Adult, Commuter and Transfer Services (439-5641)** — Personalized counseling and assistance for adult, commuter and transfer students. Commuting Student Services: car pool, off-campus housing listings, transit schedules, area maps and child care information. "One-Stop Shopping" for campus forms, applications, catalogs, schedules, and information. The "home" for two adult student organizations: Once Again Students In School (OASIS) and Alpha Sigma Lambda - the adult student honor society. Advocates for adult, commuter and transfer students to the greater campus community. Visit our web site at www.etsu.edu/students/acts.htm.

- **Arts and Sciences in the ARC (439-5248)** — Associate Dean and executive aide for the College of Arts and Sciences available in ARC for administrative forms needing College of Arts and Sciences dean signature. See web site for more details: www.etsu.edu/cas/ASinARC/index.htm.

- **Cooperative Education and Internship Services (439-5388)** — This office provides students the opportunity to gain valuable "work world" experience while earning academic credit. Students may co-op/intern in their chosen major or minor. Additionally, this office assists with resume development and Internet job access information. Visit our web site at www.etsu.edu/careers.

- **Inside Track - Tutoring (439-4758)** — An academic support program that offers a variety of tutoring approaches. Group study sessions called PAL are held in Sherrod Library, Room 354. PAL sessions are offered in selected high-risk General Education core courses. Inside Track also offers assistance in study skills and online course assistance, using the Blackboard program, which provides additional course material and handouts, and makes available Discussion Boards for posing questions. Visit our web site at www.etsu.edu/insidetrack.

- **Peer Career Center (439-8651)** — Located in the ARC, the Peer Career Center is a starting place for students who are uncertain about their choice of academic major or career. With the assistance of our professional staff, career interest inventories, personality inventories, and an extensive career library, we can help students identify career options that suit their personal needs. These services are free to current ETSU students. Limited services are available to potential students and ETSU alumni. Visit our web site at www.etsu.edu/students/counsel/peercareer.htm.

- **Scholarship Office (439-7094)** — Coordinates most of the academic and need-based scholarships. The office provides information and scholarship applications for ETSU scholarships and serves as a resource for external scholarship information. Visit our web site at www.etsu.edu/financial/Scholarships/scholarships.htm.

- **Undergraduate Student Advisement (439-8557)** — Responsible for the coordination and continuous improvement of advisement. For advisement information visit our web site www.etsu.edu/advismnt.

Alumni Association — The ETSU Office of University Alumni is the campus contact for nearly 70,000 university graduates and former students. All of these individuals are members of the ETSU Alumni Association.

Alumni may participate in a variety of activities, such as regional chapter activities, constituent societies, special alumni programs, alumni student recruitment, reunions, homecoming and various events that support ETSU.

Many alumni are chosen to participate in the popular "Alumni Return to the Classroom" program, which features alumni as "Professors for a Day" sharing their professional experiences with students during homecoming week. Alumni also participate in the "Buc Connection" career development network or support student recruitment through the Alumni Admissions Council.

ETSU's Alumni Association, in cooperation with the ETSU Foundation, also supports scholarships for academically outstanding students. The Office of University Alumni is located on campus in room 303 of Burgin E. Dossett Hall, phone (423) 439-4218.

Appalachian Studies and Services — The Center for Appalachian Studies and Services, a Tennessee Center of Excellence, coordinates instruction, research, and public service programs that address quality of life issues in the Appalachian region. The center encompasses the Archives of Appalachia, the B. Carroll Reece Museum, the Regional Resources Institute, and supports the minor in Appalachian Studies; the Bluegrass, Old-Time, and Country Music Program; Appalachian, Scottish, and Irish Studies Program; the *Encyclopedia of Appalachia*; the Governor's School for Tennessee Heritage; and a host of other activities. The center offers internships for qualified students. The center's administrative offices are located at 209 Warf-Pickel Hall, phone (423) 439-5348, e-mail cass@etsu.edu, <http://cass.etsu.edu>.

Banking — The Tennessee Teachers Credit Union, located in the University Bookstore, provides full-service banking for students. There is also an ATM machine in the Culp University Center.

Bookstore — ETSU now maintains two bookstore locations. The University Bookstore is located in the middle of the D.P. Culp Center. It is open fall and spring semester Monday - Thursday 7:45 a.m. to 6 p.m. and Friday 7:45 a.m. to 5 p.m. You may reach the store by phone at (423) 439-4436. The off-campus location, The College Store, is located at 824 West Walnut Street on the edge of campus. It is open Monday-Friday 8:30 a.m. to 5:30 p.m. It can be reached at (423) 926-0833. Both stores carry a supply of new and used textbooks, trade and reference books, school and office supplies, ETSU clothing and gifts, computer supplies, gift certificates, diploma frames, and more.

Busing System — The university has contracted with the Johnson City Transit System to offer a free shuttle service for students, faculty, staff, and visitors, linking parking lots on the perimeter of the campus with main academic and administrative buildings. Operation hours are scheduled during class periods as well as in conjunction with selected major campus events. Schedule, route, and other details are available at various locations on campus including the Office of Adult, Commuter and Transfer Services, middle level of the Culp University Center, phone 439-5641 and the Student Affairs Office, phone 439-4210.

Career Placement and Internship Services — Since the university realizes that the choice of a career is a complex and yet essential task, a number of services are provided, some for those choosing a career and others to assist in obtaining a job.

Consultation with the Office of Career Placement and Internship Services staff can help by providing: (1) job placement opportunities for full-time, part-time, and summer employment; (2) field experience-based cooperative education for academic credit; (3) an occupational and employment information library for information on career opportunities including data on specific area employers; (4) workshops and seminars on career planning, resume writing, interview techniques, and job-hunting skills; (5) computer-assisted job matching and resume design; (6) national employment trends and salary information.

The Office of Career Placement and Internship Services, phone 439-4441 is located on the third floor of the D.P. Culp University Center. Cooperative Education and Internships is located in the ARC (Culp Center), second floor, 439-5388.

Commuting Student Services — The Office of Adult, Commuter and Transfer Services provides specialized student services especially important to the commuting student. These services include transit information, loan of battery pack, and off-campus housing information. An information "HotLine" (439-5641) is provided for university bad weather advisories. These services are offered in the Office of Adult, Commuter and Transfer Services which is located in the ARC in the D.P. Culp University Center.

Computer Labs — ETSU provides a wide range of computer resources in support of instruction, research, administration, and public service. The administrative systems run under an Alpha cluster. The academic systems are comprised of a number of PC servers that form a Windows NT domain. This domain enables any student and machine

that have accounts on the domain to access the same software and e-mail account from multiple locations around campus.

Six labs contain 157 Dell PCs, 60 wireless Dell laptops and 24 Macintosh computers. A growing software library is available in each lab, and all computers are connected to the campus network. Software currently available in the D.P. Culp Lab, Sam Wilson 124 and 129, Rogers-Stout 320, and Lucille Clement labs are Microsoft Windows XP, Microsoft Office XP, Microsoft Visual Studio, Net 2003, Internet Explorer, Internet-based e-mail, most Adobe and Macromedia products, SAS, SPSS, and Minitab along with McAfee virus protection software. The currently available software in Warf-Pickel 419 is Photoshop, PageMaker, Quark-XPRESS, and Macromedia Freehand. When not in use as classrooms, computers labs are available for walk-in use by any registered student.

The computer labs are staffed by Lab Monitors (student workers) at all times. They are supervised by a central Lab Manager. Lab Monitors help users with common problems and keep the lab secure and orderly. They are not tutors.

All students are provided with Internet access and an e-mail address that will be active for the duration of their stay at ETSU. Students are able to register for classes and even pay fees online via *Goldlink* on ETSU's web page.

Computer Resources Code of Ethics — All users of any institutionally maintained electronic data, data files, software, and networks are expected to handle the resource in a responsible and ethical manner. A user's interest ceases when it invades the right of personal and/or institutional privacy; results in the destruction of personal and/or institutional property; demonstrates a potential for loss, embarrassment, litigation to the individual and/or institution; or causes a limited resource to be used in a wasteful or careless manner.

All information processed through Computer Services is considered sensitive and/or confidential. The responsibility for the release or discussion of data is assigned to the official custodian of the data file(s). Access to information is based on a legitimate "need to know" and directly related to assigned duties.

University electronically maintained data, data files, software, and networks will be used for authorized purposes only. Users are responsible for the security of the resources.

Any use of the resource deemed irresponsible or unethical (as defined in the Faculty Handbook section 1.10.1) will result in the immediate denial of use of the resource. The violation will be referred to the proper authorities for disciplinary and/or legal action including, but not limited to, restitution, restriction, reprimand, suspension, probation, expulsion, termination, and, if necessary, legal action. Appeals will be handled through due process channels (APA) already established for students and/or staff. Student violations will be referred to the Vice President for Student Affairs and/or Vice President for Health Affairs; faculty violations will be referred to the Vice President for Academic Affairs and/or the Vice President for Health Affairs; and staff violations will be referred to the Vice President for Administration and Development.

The following examples attempt to convey the intent of irresponsible and/or unethical use: violation of Federal/State copyright laws; violation of the Family Educational Rights and Privacy Act of 1974; use of the resource for obscene material; deliberate wasteful use of the resource, unauthorized altering of hardware, software, or data; piracy of data or software belonging to another person; or careless use of the resource which may result in the release of restricted information.

Computer Network and Internet Access: Privileges & Responsibilities — East Tennessee State University (ETSU) operates a wide-area network that interconnects local area networks in academic and administrative offices, student computer labs, and in the future dormitory rooms. The university maintains connections into the Tennessee Education Cooperative Network (TECnet), the Internet and the World Wide Web. Thus, the university's network is a part of the global network that provides access to information and information processing

technologies. By having access to the university's network and its resources, students, faculty, and staff can communicate and collaborate among themselves and their counterparts throughout the world. This privilege carries with it responsibilities with which all users must comply.

Everyone within the ETSU community who uses networked computing and communications facilities has the responsibility to use them in an ethical, professional and legal manner, and to abide by TECnet policies. Users should respect the privacy rights of others. ETSU's facilities and network access capabilities should never be used for purposes intended to incite crime. Communications which violate Tennessee, federal, or international law are not acceptable. For example, the use of ETSU's computer and network resources to threaten or harass others or the misrepresentation of one's identity in electronic communications for the purpose of illegal or unauthorized actions or activities will not be tolerated.

These statements concerning responsibility are not meant to be exhaustive. Any questionable use should be considered "not acceptable." Serious or repeated instances of abuse will be referred to the proper authority for disciplinary or legal action.

****WARNING**** Any person who knowingly brings on campus, has in their possession or distributes any virus without the authorization and written permission of the Division of Information Resources, will be considered to be in violation of the above and will be vigorously prosecuted. ****Campus**** is defined to include any property owned, leased, maintained or controlled by ETSU and includes any site or area where any system owned, leased, operated and/or maintained by ETSU is housed.

NOTICE TO USERS: It is the policy of East Tennessee State University to protect all institutional computing resources including, but not limited to, hardware and software, consisting of the actual equipment being supplied by the university as well as the programs and related materials used in conjunction therewith. In accordance with local, state, and federal law, indiscriminate examination of individual user's files is not permitted, nonetheless as a means of maintaining the integrity and security of those aforementioned resources.

East Tennessee State University retains the right to inspect individual accounts and files stored on any system owned, maintained and/or leased by said university. While no prior authorization by individual users is required to inspect those files and accounts, the user is, by virtue of accepting the account offered by ETSU and "logging" on to its computing equipment, granting to the university prior unrestricted permission, subject to university policy, to review, examine and/or otherwise view, by any method at the sole discretion of the university and without any additional advance notice to said user, any account and/or file stored on university computer resources.

Should such a review take place, the user will be given notice, as a courtesy only, of the results of said review within a reasonable time after the review is completed. While use of university computing resources for personal use is strictly forbidden, should the user have materials for which he/she has any reasonable expectation of privacy or which the user considers to be confidential for any reason, the user should retain those materials on a disk which can be secured as would any other personal items or materials which one consider private in nature.

For such a policy to work, it is essential that users observe responsible and ethical behavior in the use of the resources. In an effort to assist the user community in effective use of the limited computer resources, it seems reasonable to highlight some specific responsibilities and types of behavior that represent abuse of a user's privilege. The examples do not constitute a complete list but are intended to convey the intent of the code.

Users should not damage or attempt to damage computer equipment or to modify or attempt to modify equipment so that it does not function as originally intended. It is equally wrong to damage or modify or attempt to damage or modify the software components: operating systems,

compilers, utility routines, etc.

Users should not use or attempt to use an account without authorization from the owner of that account. Users have the responsibility of protecting their accounts through the proper use of passwords, but the fact that an account is unprotected does not imply permission for an unauthorized person to use it. Further, accounts are to be used only for the purposes for which they have been established. [Only the individual owner of an account is authorized to use that account. Providing passwords or in any way permitting or making it possible for anyone other than the authorized owner of the account to use computer resources is not authorized and may be a violation of Tennessee Law. Under this condition both the owner and the unauthorized user may be subject to legal action if determined to be appropriate by ETSU legal counsel.] Additionally, it is wrong to use a university-sponsored account for funded research, personal business, or consulting activities. There are special accounts for such purposes.

Users should not use private files without authorization. Owners of such files should take precautions and use the security mechanisms available. However, the fact that a file is not protected does not make it right for anyone to access it, unless it is specifically designed as a public access file. It is equally wrong for anyone to change or delete a file that belongs to anyone else without authorization. Violation of property rights and copyrights covering data, computer programs, and documentation is also wrong. In the event of accidental access of private files, confidentiality of those files must be maintained.

Any deliberate wasteful use of resources is irresponsible; it encroaches on others' use of facilities and deprives them of resources. Printing of large unnecessary listings and the playing of games solely for entertainment are examples of such abuse. Users are expected to be aware of the resources they are using and to make reasonable efforts to use these resources efficiently.

All state and federal copyright laws will be abided by at all times. Users must not copy any part of a copyrighted program or its documentation which would be in violation of the law or the licensing agreement without written and specific permissions of the copyright holder.

Serious or repeated instances of abuse of computer facilities and resources will be referred to the proper authorities for disciplinary or legal action including, but not limited to, restitution, restrictions, reprimand, suspension, probation, expulsion, or termination.

Computer Services — ETSU provides a wide range of computer resources in support of instruction, research, administration, and public service. The administrative systems utilize a VAX 6520 under the VMS operating system. The academic mainframe is an IBM ES/9000 model 190 with a VM operating system and utilizing the Conversational Monitoring System (CMS). A vector processor and a number of compilers and software packages are available, including SPSS, SAS, FORTRAN, and PASCAL. Student access to the academic system in support of classroom assignments is available in the microcomputer labs.

Cooperative Education — Cooperative education provides an opportunity to earn academic credit in most disciplines for carefully planned and supervised work experience in business, industry, health, and governmental agencies. Students may take classes while in a co-op placement, or alternate between semester placements. Information about the cooperative education program can be obtained through the Office of Career Placement and Internship Services located in the ARC Center, 2nd level, D.P. Culp University Center; phone 439-5388.

Counseling Center — The Counseling Center (340 D.P. Culp, University Center) provides an array of counseling and mental health service to ETSU students, including personal counseling, career counseling and assessment, educational programming, psychiatric services, and consultative services. Our staff is comprised of psychologists, an outreach coordinator, psychiatric residents, graduate assistants, and support staff. The Center is also responsible for the Campus Alcohol and Other Drug

Program and the Campus Advocates Against Sexual Violence Program. We provide our career services through the Peer Career Center, located in the Advisement, Resources, and Career (ARC) Center. Counseling services are confidential and free to all ETSU students. For more information about our services, contact our main number (439-4841) or contact the Peer Career Center (439-8651).

Disability Services — In compliance with federal regulations outlined in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, East Tennessee State University makes accommodations, course substitutions, and other academic adjustments when necessary to ensure equal access for students with disabilities. While all students with disabilities are protected from discrimination, some students may not be eligible for all of the services coordinated by Disability Services. Classroom and testing accommodations are made on an individual case-by-case basis. Students who wish may request an accommodation or academic adjustment because of a disability by completing the intake process with Disability Services self-identity.

During the intake process, Disability Services informs students of procedures surrounding the accommodation process, student responsibilities, as well as ETSU responsibilities. Eligibility for classroom and testing accommodations and other support services coordinated by Disability Services is based on the review of student's documentation of disability. Intake applications are not complete until Disability Services has received and reviewed current documentation of disability. Individualized education plans (IEP) cannot be used as documentation; however, information included in an IEP may be helpful when identifying the services a student may utilize while at ETSU.

In order to establish eligibility, the documentation provided should follow the established guidelines and include:

- Statement of diagnosis, date of most recent evaluation, and when available, date of original diagnosis by an impartial professional,
- Description of diagnostic criteria and/or diagnostic tests used,
- Description of the current impact of the disability in an academic environment,
- Credentials of the diagnosing professional,
- Documentation of attention deficit disorders should be no more than three years old, and
- Documentation of learning disabilities should be no more than five years old with results based on an adult measurement scale.

The diagnosing professional must have specific training and expertise in a field related to the type of disability being diagnosed. For example, a psychologist, psychiatrist, or educational examiner must make a learning disability diagnosis. Documentation not including the information outlined above or from a professional whose credentials are not generally indicative of expertise in the specific disability being diagnosed can not be used to establish eligibility for services. ETSU does not provide any type of learning disabilities evaluations; however, Disability Services maintains a list of professionals in private practice that can evaluate learning disabilities.

Disability Services is located in the D.P. Culp Center, Suite A on J.L. Sehorn, Jr. Road (v/tdd) 423-439-8346, (tdd) 423-439-8370.

Early Childhood Learning and Development — The Center for Early Childhood Learning and Development operates programs to serve the needs of young children and their families. Some of these programs offer child care services for families. The Infant-Toddler programs serve children ages three months to three years in a full-year, full-day program. The Early Learning Program, Child Study Center, serves children ages three through five years of age in a full-year, full-day program. Students who are interested in enrolling their children in either of the programs can obtain more information by calling 439-4888. Enrollment is on a limited basis.

A child care program, Little Buccaneers Student Child Care Center, specifically designed to meet the needs of ETSU students, opened in

June 1997. ETSU students can enroll their children for blocks of time each semester that would accommodate their child care needs while attending classes and during study times. This program is supported by the Student Activities Allocation Committee and ETSU. Information for this program can be obtained by calling 439-7549.

Students majoring in early childhood education, communicative disorders, special education, nursing, social work, counseling or psychology may find it beneficial to observe in these programs. Graduate assistantships, Academic Performance Scholarships, Federal Work Study Program employment opportunities, student teaching, and practicum positions are also available.

Financial Aid — A comprehensive financial aid program has been developed to assist eligible students. Counselors are available from 8 a.m. - 4:30 p.m. Monday through Friday. This office is located in Burgin E. Dossett Hall, phone 439-4300, 1-800-704-ETSU (3878), e-mail finaid@etsu.edu. For more information, please visit the financial aid office web page at <http://www.etsu.edu/finaid/financial.htm>.

Games Room — The games room is located in the D.P. Culp University Center and offers a variety of amusements including video games, pinball, pool, table tennis, and "foosball."

ID Card and Campus Debit Card (ID BUCS) — All students must obtain an official East Tennessee State University ID Card in order to have access to university facilities and services. Your ID card not only provides student identification, but will also allow access to Sherrod Library services, door access to residence halls, Mini-Dome, CPA, AVL, computer labs, parking lot gates. Your ID card is also used to access meal plans, to obtain tickets to athletic events, and to participate in student voting.

Students may also choose to create a debit account called ID BUCS. You may use ID BUCS in the Campus Bookstore, all Food Service locations, laundry facilities in residence halls, Student Health Clinic, University Press Convenience Center, Sherrod Library, Bursar's Office, and Pepsi, Coke, and snack machines located all over campus. ID Cards will be issued during new student orientations or any time after registering for classes. Please come by the ID Services Office on the second level of the D.P. Culp Center for additional information and a brochure detailing all of the terms and conditions and services.

ID Services Office, P. O. Box 70611, Johnson City, TN 37614

Phone: (423) 439-8316

Regular Office Hours: Monday - Thursday 8 a.m. - 7 p.m.
Friday 8 a.m. - 4:30 p.m.

Immunization Requirements — Full-time students entering college are required by law to have proof of two doses of MMR vaccine. Documentation must be on file with Student Health Services before you can register for the following semester.

The first dose must have been given on or after the first birthday. MMR vaccinations must be given at least 30 days apart. Students born prior to 1957 are exempt from this requirement. Students who have graduated from Tennessee high schools in 1999 or after do not have to provide documentation.

The State of Tennessee mandates that **all** students be informed about Hepatitis B infection. Those students who will be **living in on-campus housing** must also be informed about the risk of meningococcal meningitis infection. A waiver indicating that the student is aware of the disease risks and the availability of vaccines for the diseases of hepatitis and meningitis must be signed. The waiver may be obtained from Student Health Services, from the Student Health Services web site: www.etsu.edu/studenthealth, or can be electronically signed on *GoldLink* at the time of registration for classes. The law does not require hepatitis or meningitis vaccinations for enrollment at this time. The waiver must be signed to avoid delays in the registration process for classes and obtainment of grades. The paper waiver should be turned in to Student Health Services. It may be faxed to 423-430-4560.

Information Areas — For information by phone call 0 if on campus and 439-1000 if off campus. Information via the Internet is available at www.etsu.edu.

The University Center Office on the second floor of the D.P. Culp University Center serves as a general information area from 8 a.m. to 10 p.m., Monday through Friday 10 a.m. to 10 p.m. Saturday and Sunday during the fall and spring semesters.

The Center for Student Life and Leadership located in the D.P. Culp Center provides information on student organizations, campus programs, campus calendar of events, and distributes student football tickets for home games. Hours are 8 a.m. - 4:30 p.m. Monday - Friday. Phone 439-5675.

The Center for Adult, Commuter, and Transfer Services, located in the ARC Center on the 2nd level of the Culp University Center, has a supply of most printed material available on campus. Staff members are willing to locate the information desired, if it is not already available in the office. Hours are 8 a.m. - 4:30 p.m. Monday-Friday. Phone 0 if on campus and 439-1000 if off campus.

Insurance — It is the responsibility of all students to provide hospitalization insurance for themselves if they desire to have coverage in the event of an illness or in case of injury while attending the university. For those students not having protection under a family insurance plan or for those who want additional coverage, ETSU has arranged for a special student insurance policy. Application forms and information pertaining to this insurance are available in the Student Affairs Office located on the 3rd level of the D.P. Culp Center.

International Programs — The Office of International Programs, located on the first floor of Yoakley Hall, serves the international community of visiting international students and scholars from more than 60 countries who attend or visit ETSU. Programming, advising, immigration paperwork, community outreach, and Friendship Family Program are among the many services offered by the Office.

The office coordinates both the National Student Exchange (NSE) and the International Student Exchange Programs (ISEP), which provide ETSU Students Study Abroad opportunities at a cost comparable to that of ETSU.

Libraries — The new Sherrod Library, containing the major learning resources that support the university's program of teaching and research, opened in 1999. Seventy-plus public access computer stations and laptop connection areas are distributed throughout this state-of-the-art building which has more than 1,800 seats. The collections include one-half million volumes, over one million microforms, over 2,000 periodical subscriptions, more than 350,000 federal and state documents and maps, audiovisual media, and the state depository collection of K-12 state-adopted textbooks. All of the materials in the collections can be found in the VOYAGER catalog, which is accessible from any Internet-connected computer. There are 25 laptops available for in-library loan to students. Copy machines and printers are located on each floor. A study room open 24 hours a day is accessible with a student ID.

The ETSU/UT at Kingsport Library has a collection of over 25,000 volumes and maintains subscriptions to over 100 periodicals.

The Medical Library is located in Building 4 of the Veterans Affairs Medical Center. The library has a seating capacity of 213 and houses a collection of over 96,000 books, journals, computer databases and media which support the academic, clinical, and research programs of the College of Medicine.

Museum — A campus history project initiated in the late 1920s created a repository that ultimately emerged as the B. Carroll Reece Memorial Museum. Its initial collections were made up of art and artifacts which had been collected and housed by the Department of Art and Design and Sherrod Library. The Carroll Reece Museum was formally dedicated on October 10, 1965. It is a component of ETSU's Center for Appalachian Studies and Services and has been accredited by the American Association of Museums since 1972.

The Reece Museum serves as a resource to the university's students and faculty, as well as to the larger community. Reece Museum has three galleries which feature temporary exhibits of art and artifacts, and three galleries which house permanent exhibits consisting of musical instruments, items used during frontier settlement of the region, memorabilia from Congressman B. Carroll Reece, and selected prints from the permanent collection. Services and programs include guided tours of museum exhibits, out-of-town "Discovery Tours," workshops, lectures and other scholarly presentations, musical and other performances, demonstrations, and exhibit openings and receptions. Specialized instruction and programs are available upon request. All events and admission are free to the public. Office hours are weekdays from 8 a.m. until 4:30 p.m. Gallery hours are 9 a.m. until 4 p.m., Monday-Wednesday and Friday, 9 a.m. until 7 p.m. on Thursday, and 1-4 p.m. on Saturday and Sunday.

Service Programs — ETSU's commitment to service is evident through the campus mission statement and the numerous opportunities we provide students. Whether community-based and interdisciplinary education, service-learning, and/or co-curricular service opportunities, students are encouraged to expand their intellectual and social development. For more information, contact the Center for Student Life and Leadership at 439-5675 or sllinfo@etsu.edu.

Student Organizations — If you are looking for ways to get involved on campus - you have come to the right spot. There are more than 150 registered student organizations on the campus of ETSU, representing the diverse interests of our student population. Students are encouraged to be involved in campus life and our office can help you make the connection.

Student Life and Leadership serves as the resource center for all registered student organizations. We provide services and information, such as registration of organizations, assistance with event planning, maintenance of student activity calendar of events, and leadership training for student organizations.

Nearly 150 student organizations provide involvement opportunities for everyone. Student organizations at ETSU are categorized into one of the following areas which best describes their general purpose: Academic, Community Service, Governance, Greek, Honors, Religious, Residence Life, University Programs, and Special Interest. Contact Student Life and Leadership, phone 439-5675 for more information.

Academic Clubs

Actuarial Student Association
 Advertising Club
 Alpha Sigma Iota
 American Congress on Surveying and Mapping
 American Marketing Association
 American Society of Interior Designers
 Appalachian Traditional Music Association
 Art Students League
 Association for Computing Machinery
 Association of Student Nurses
 Association of United States Army
 Biomedical Sciences Graduate Association
 Buccaneer Outdoor Recreation Club
 Club Cervantes
 Construction Management Association
 Criminal Justice Graduate Society
 Criminal Justice Undergraduate Society
 Der Deutsche Club - German Club
 E.D.G.E. Club
 Entrepreneur's Club
 Graduate Students Association of Psychology
 History Club
 Human Development and Learning

Japanese Cultural Society
La Societe Francais
Master of Public Health
Mathematical Association of America
Mockingbird
Percussion Society
Phi Mu Alpha Sinfonia - Music
Philosophy Club
Physical Education Major Club
Pre-Law Society
Printmakers Guild
Psychology Club
Public and City Management Association of Graduate Students
Public Relations Student Society of America
Respiratory Therapy Association
Sisters in Music
Society for Human Resources Management
Student Affiliates of the American Chemical Society
Student American Dental Hygienists Association
Student Association for Young Children
Student Ceramic Association
Student Dietetic Association
Student Metal Art Connoisseurs
Student Painting, Drawing, and Alumni Association
Student Photography Association
Student Radiographer
Student Sculpture Society
Student Social Workers Association
Student Tennessee Education Association
Students of Finance Administration
Taletellors

Honor Societies

Alpha Lambda Delta
Alpha Phi Sigma
Alpha Psi Omega
Alpha Sigma Lambda
Beta Alpha Psi - Business
Beta Beta Beta
Delta Omicron
Delta Phi Alpha - German
Delta Sigma Pi
Epsilon Pi Tau
Eta Sigma Gamma - Public Education
Gamma Beta Phi
Golden Key Honor Society
Kappa Delta Pi
Kappa Mu Epsilon - Mathematics
Kappa Omicron Nu - Economics
National Residence Hall Honorary
Omicron Delta Kappa
Order of Omega - Greek Leadership
Phi Alpha Honor Society
Phi Alpha Theta - History
Pi Delta Phi Honor Society - French
Pi Gamma Mu - Social Science
Pi Sigma Alpha
Psi Chi - Psychology
Rho Lambda - Panhellenic Leadership Honor Society
Sigma Theta Tau - International Honor Society for Nursing Students

Campus Ministry Opportunities

Baptist Collegiate Ministries
Campus Crusade for Christ
Catholic Campus Ministries
Christian Medical and Dental Association
Christian Student Fellowship
Fellowship of Christian Athletes
Impact Christian Movement
11:58 Ministries
Latter Day Saint Student Organization
Muslim Students Organization
Reformed University Fellowship
Spurgeon Foundation Campus Ministries
The Well
Wesley Foundation
Young Life - QUEST

Social Fraternities and Sororities

Fraternities

Alpha Kappa Lambda
Alpha Phi Alpha
Lambda Chi Alpha
Phi Beta Sigma
Pi Kappa Alpha
Sigma Alpha Epsilon
Sigma Chi
Sigma Nu
Sigma Phi Epsilon
Tau Kappa Epsilon

Sororities

Alpha Delta Pi
Alpha Xi Delta
Delta Sigma Theta
Kappa Delta
Sigma Kappa
Zeta Phi Beta

Community Service

Alpha Phi Omega
Campus Girl Scouts of ETSU
Rotaract
Volunteer ETSU

Special Interest Groups

Campus Greens
Chinese Student and Scholar Association
College Democrats
Cycling Club
East Tennessee Martial Arts
Exhibitionists (promotes Slocumb Art Gallery)
Feminist Majority Leadership Alliance
Gamma/Bacchus
Gospel Ensemble
Mentoring Women in Computer Sciences
Patchwork Players
SCUB's (Students Contributing Unmatched Buc Spirit)
Silent Bucs
Society for the Prevention of Checkmate - Chess Club
Student Advisory Committee - Kingsport
Student Advocacy Committee
Students in Free Enterprise
University Amateur Radio Club

University Sponsored

Admissions Ambassadors
 Black Affairs Association
 East Tennessean
 International Student Organization
 OASIS - (Once Again Students in School)
 Orientation Leaders Association
 President's Pride
 Student Services Board - Kingsport
 University Productions
 Venturing Outdoors

Governance

Graduate and Professional Student Association
 Honors Program Student Council
 Inter-Fraternity Council
 National Pan-Hellenic Council
 National Panhellenic Council
 Residence Hall Association and 9 Hall Councils
 Student Government Association

Placement Service — Placement services are provided as part of the Office of Career Placement and Internship Services. The office processes inquiries from business, industry, school systems, hospitals, and government and social agencies. It also assembles employment materials, checks recommendations, arranges for interviews, distributes credentials, and provides other support service to complete the employment process. The Office of Career Placement and Internship Services is located in room 323 of the D.P. Culp University Center, phone 439-4441.

Public Safety — The Public Safety Building is located at the entrance of the university on University Parkway and has personnel on duty 24 hours a day for assistance. The emergency telephone number is 911. The public safety staff is composed of 21 state-certified sworn police officers who are also trained fire fighters. Public safety is a full-service police department encompassing traffic and parking enforcement, uniformed patrol, criminal investigations, and crime prevention education. Public Safety also provides these services: an escort service, engravers, booster cables, and battery booster packs. The non-emergency telephone number is 439-4480. The number for the administrative offices is 439-6900.

A traffic and parking regulation brochure has been prepared to inform and to protect all who use the campus roadways and parking areas. It is available in the Public Safety Building or at window #10 on the second floor of Burgin E. Dossett Hall.

Regional Centers — ETSU at Kingsport is located on 97 acres and offers day, evening and weekend classes, including lower and upper division and graduate courses. The selection is sufficient to meet most degree requirements of the university during the first two years. The phone number is 392-8000.

ETSU at Bristol is located at 1227 Volunteer Parkway, Bristol, Tenn. The site offers a variety of undergraduate and graduate classes leading toward selected majors with day, evening, and weekend schedules. The telephone number is 423/844-6300.

ETSU at Greeneville is located in the Greeneville-Greene County Center for Higher Education building, 215 North College Street in downtown Greeneville. Selected undergraduate and graduate courses are available during the day and evening through an articulation agreement between ETSU and Walters State Community College.

The Department of Health Related Professions, located at the Nave Center in Elizabethton, is a multidisciplinary department offering courses of study leading to a certificate in Dental Assisting. The Bachelor of Science degree is available in Allied Health with concentrations in Cardiopulmonary Science and Radiography. The telephone number is 423/547-4900.

Research Development Committee — The ETSU operating budget provides funds for assistance to faculty and staff members for individual research projects. These funds are administered by the Research Development Committee which evaluates applications for research grants, summer stipends, and grants-in-aid.

School of Continuing Studies — As an academic service provider for the university, the School of Continuing Studies offers a variety of opportunities. The Division of Cross-Disciplinary Studies makes it possible to offer degree programs or selected courses at the work place or in local communities through Cohort Programs. The Bachelor of General Studies, Bachelor of Applied Science, Bachelor of Science in Professional Studies, and the Bachelor of Science in Interdisciplinary Studies programs serve to non-traditional students who need courses off-campus, in the evening, or online. The Master of Arts in Liberal Studies allows adult students to pursue interdisciplinary study in a variety of areas. Regional centers and sites in Bristol and Kingsport afford students the opportunity to remain close to home and pursue a degree. Distance Education plays a central role in the university's ability to serve students in their own community, thereby saving the students time and transportation expense. Professional Development offers nationally or regionally known noncredit programs and can custom design a program for those who have a need. The federally supported TRIO Programs provide a great opportunity for low income, first generation college students, college-bound students, disabled students, or veterans.

Service-Learning — Service-Learning is a form of experimental education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development. ETSU's Service-Learning program offers students the opportunity to combine community service with an academic course. A variety of departments have service-learning courses available. Some examples of courses with a service-learning component include Spanish, History, Sociology, Criminal Justice, and Education. Separate courses. Introduction to Service-Learning (SRVL 1020) and Advanced Service-Learning (SRVL 2000) offer students a more in-depth look at community needs while providing a service placement to work on those issues. Co-curricular service-learning opportunities are available through Volunteer ETSU, Reading Tutors, and Alternative Spring Break. Contact the Office of Service-Learning in the Center for Student Life & Leadership, lower level of the Culp Center for more information 439-5675.

Student Government Association — The Student Government Association (SGA) strives to represent the opinions of the students on every aspect of campus academic and extracurricular life. Its members work closely with students, faculty, and administration to provide advice and information and a strong voice in the governance of the university. The SGA is located near the Office of Student Life and Leadership on the lower level of the D.P. Culp University Center, phone 439-5325.

Student Health Services — East Tennessee State University students enjoy the benefits of a modern health care service. The Student Health Clinic is part of the College of Nursing Faculty Practice Network. Clinic Services are available to all enrolled students. The professional staff includes nurse practitioners, physicians, registered nurses, and a health educator. Services include:

- Management of acute, episodic illnesses and injuries
- Referrals for assistance in managing chronic disorders
- Immunizations
- Women's health program and assistance with family planning
- Men's health program
- Allergy clinic for those receiving allergy injections
- Patient education programs on a variety of topics

The Student Health Clinic is located in room 55 of Lamb Hall. Please call (423) 439-4225 for further information.

The Dental Hygiene Clinic of the Department of Dental Hygiene offers such comprehensive preventive therapeutic procedures as scaling and polishing teeth, pit and fissure sealants, nutritional counseling, periodontal therapy, patient education and exposing and developing radiographs. All treatment is performed, for a modest fee, by dental hygiene students under the supervision of the licensed dentist and dental hygiene faculty. Services are open to all students, university employees, and the general public. Appointments may be obtained by contacting the Dental Hygiene Clinic at 439-4514 in Lamb Hall, room 71 (Health Building).

The Speech-Language-Hearing Clinic, a component of the Department of Communicative Disorders, provides professional speech-language pathology and audiology services to students, faculty, and the general public. The service is provided by speech-language pathology and audiology graduate students under the direct supervision of licensed Speech-Language Pathologists and Audiologists. The areas of service include speech and hearing evaluation, hearing aid evaluation, and treatment of speech and hearing disorders through therapy. Intervention may be available for deficits in articulation, phonology, language, voice, and fluency. The clinic is located in Room 204 of Lamb Hall. Please call (423) 439-4355 for appointments or information.

Student Life and Leadership, Center for — At the Center for Student Life and Leadership, students excel in service and leadership both on campus and in the community. The center brings new, fun, and exciting learning opportunities for students through involvement in such programs and activities as student organizations, Greek Life, service-learning, and leadership education.

The mission of the Center for Student Life and Leadership is to educate through programs, services, advisement, and other experiences necessary to the growth of students and their development of social awareness and civic responsibility.

Located on the lower level of the D.P. Culp Center, the Center is open 8 a.m. - 4:30 p.m. For information contact us at 439-5675 or by e-mail at slinfo@etsu.edu. Web site is www.etsu.edu/studentlife/

University Center, D.P. Culp — The D.P. Culp University Center is a modern architecturally designed student center conveniently located in the heart of campus. The specific purpose of the Culp Center is to serve students as an integral part of their educational and recreational life. The Culp University Center provides a wide variety of services, entertainment, and social and recreational activities for the campus community.

In addition to recreational facilities, the Culp University Center houses five separate food service areas, the bookstore, the post office, a mini-market, a computer lab, a variety of administrative offices, meeting rooms and conference facilities, a ballroom, and an auditorium/theater. For information regarding the use and reservation of these facilities, contact the Culp University Center office at 439-4286.

Among the administrative offices housed within the building are the Counseling Center, Career Placement and Internship Services, Vice President for Student Affairs, Student Support Services, Upward Bound, Food Services, Student Life and Leadership, Center for Adult Programs and Services, Campus ID System Offices, Advisement and Career Resources Center and the University Center.

University Press — The University Press is the Tennessee Board of Regents recognized print facility for ETSU and is located on the lower level of Sam Wilson Hall. The Press is a full service print shop with the ability to produce brochures, programs, handbooks, reports, newsletters, fliers, posters as well as other B&W and color publications. UP also provides comprehensive graphic services for faculty, administration, and staff including business cards, letterhead, invitations along with output of graphic files and scanned material. Also located at University Press is a full service quick copy department, ready to handle one copy or high volume. In addition, UP has a satellite quick copy booth in the Culp

Center for walk-up customers requiring copies, faxes, spiral binding and transparencies. University Press is open Monday through Friday from 8 a.m. until 4:30 p.m. For more information, call 439-4250.

University Productions — Comprised of students, University Productions plans major campus events such as concerts, movies, lectures, comedy shows, and Homecoming. Students can be involved with University Production as a member or programmer, or by attending a show as an audience member. It is a great opportunity to learn the technical, business, and marketing side of the entertainment industry. Located in the Center for Student Life and Leadership, D.P. Culp University Center, lower level, phone 439-6828 or e-mail univprod@etsu.edu.

Veterans' Affairs — Coordinates the administration of education benefit programs of the United States Department of Veterans Affairs (USDVA) for eligible veterans and certain dependents of disabled veterans. Currently, the entitlement programs primarily consist of:

Montgomery GI Bill-Active Duty Educational Assistance Program (Chapter 30, Title 38 *United States Code*)

Montgomery GI Bill-Selected Reserve Educational Assistance Program (Chapter 1606, Title 10 *United States Code*)

Survivors' and Dependents' Educational Assistance Program (Chapter 35, Title 38 *United States Code*)

Veterans' Work-Study Allowance Program

Licensing and Certification Examination Reimbursement Program.

Veterans' Affairs can provide information, forms and assistance with the application for any of USDVA education benefit programs. Graduate students desiring benefit payments must contact Veterans' Affairs each semester to request their enrollments be certified to the USDVA Atlanta Regional Processing Office (RPO). Students are required to keep Veterans' Affairs informed of all changes to enrollments. Graduate students are also required to provide a copy of their official acceptance letter into graduate study. By federal regulations, student veterans must attend classes, demonstrate satisfactory conduct and effort toward fulfilling the requirements courses in their selected academic program; otherwise, retroactive adjustments to enrollment certifications may be made that may affect eligibility to past benefit payments received. Military experience and training are not considered for award of any academic credit at the graduate level.

Information on veteran education benefit programs is available from the USDVA Veterans Benefits Administration Education Service on the Internet at www.GIBILL.va.gov. Inquiries about the status of education benefit payments and other general information, such as remaining entitlement and expiration date of benefits, may be directed to the USDVA Atlanta RPO toll-free at 1.888.GI.BILL.1 (1.888.442.4551) or electronically to atlrpo@vba.va.gov. The Atlanta RPO's mailing address is: Regional Processing Office, United States Department of Veterans Affairs, Post Office Box 100022, Decatur, Georgia 30031-7022. Veterans' Affairs does not have access to benefit payment status, remaining and expiration of entitlement, and other information maintained by the USDVA.

New and transfer student veterans are required to provide a photocopy of "Member Copy 4" of Department of Defense (DD) Form 214, *Certificate of Release or Discharge from Active Duty*, a copy of DD Form 2366, *Montgomery GI Bill Act of 1984* (GI Bill enrollment election form), if available, or other veterans education benefit entitlement/eligibility documents, including, but not limited to, college fund or "kicker" contracts or "buy-ups", if any. Reservists and members of the National Guard will need to provide the original of DD Form 2384, *Selected Reserve Educational Assistance Program Notice of Basic Eligibility*. Survivors and dependents of totally and permanently service-connected disabled (or deceased) veterans applying for education benefits should provide a copy of the disabled/deceased veteran's disability "Rating Decision" or a copy of the USDVA "Certificate of Eligibility," if received from a previously submitted application.

Active duty military service members, reservists, or National Guard members may use tuition assistance benefits in conjunction with USDVA education benefit programs, but should consult with and coordinate their application for such benefits with Veterans' Affairs.

Veterans' Work-Study Allowance Program opportunities are available locally to eligible students. Students must have remaining education benefits entitlement and be enrolled at least three-quarter time during the semester to participate. Interested students should contact or submit an *Application for Work-Study Allowance*, VA Form 22-8691, to Human Resources (05), [Building 20], James H. Quillen Veterans Affairs Medical Center, Post Office Box 4000, Mountain Home, Tennessee 37684-4000. Further information may be obtained by telephone at 423.926.1171 extension 7181.

Veterans' Affairs also assists in the coordination and supervision of benefits approved under the USDVA Vocational Rehabilitation & Employment (VR&E) program (Chapter 31, Title 38 *United States Code*). VR&E beneficiaries must also contact Veterans' Affairs each semester for approval of enrollment registration. Questions pertaining to program eligibility or out-of-area transfers to the university may also be directed to J. Douglas Murdock, Case Manager, <vrmdmurd@vba.va.gov>, USDVA Vocational Rehabilitation & Employment, 412 North Cedar Bluff Road, Suite 416, Knoxville, Tennessee 37923-3619. The telephone number is 865.545.4732 and for telefacsimile communications, 865.545.4736. Disabled veterans should also coordinate any special campus access and use related needs with Disability Services located on the Lower Level of the D.P. Culp University Center, Suite A, or the office can be reached by telephone at 423.439.8346.

Veterans' Affairs is located within the Office of the Registrar in Room 101A Burgin E. Dossett Hall on the main campus. Office hours are from 8:00 a.m. to 4:30 p.m. weekdays. The office telephone is 423.439.6819 and electronic mail address is <va@etsu.edu>. The office maintains a web site at www.etsu.edu/va/.

Eligibility for Deferment of Payment of Tuition and Fees by Certain Eligible Students Receiving U.S. Department of Veterans Affairs or Other Governmentally Funded Educational Assistance Benefits

Servicemembers, veterans, and dependents of veterans who are eligible beneficiaries of U.S. Department of Veterans Affairs education benefits or other governmentally funded educational assistance, subject to the conditions and guidelines set forth in Tennessee Code Annotated 49-7-104 as amended, may elect, upon formal application, to defer payment of required tuition and fees until the final day of the term for which the deferment has been requested. Application for the deferment must be made no later than 14 days after the beginning of the term, and the amount of the deferment shall not exceed the total monetary benefits to be received for the term. Students who have been granted deferments are expected to make timely payments on their outstanding tuition and fees balance once education benefits are being delivered, and eligibility for such deferment shall terminate if the student fails to abide by any applicable rule or regulation, or to act in good faith in making timely payments. This notice is published pursuant to Public Chapter 279, Acts of 2003, effective July 1,

Eligible students seeking deferments on the payment of tuition and fees pursuant to state law need to have their eligibility status verified by the Veterans' Affairs office and complete a request form that is, in turn, presented to the Bursar's Office. Students desiring to participate in the Veterans' Work-Study Allowance Program must submit an application each semester along with a copy of the student's enrollment certification that can be obtained from the Veterans' Affairs office after allowing ample time for preparation. Students should contact Veterans' Affairs as soon as possible after enrolling to complete all required forms.

Volunteer ETSU — Volunteer ETSU is a student-organized community service resource center that promotes, organizes, and supports a variety of public service opportunities for the campus community. It continues a long tradition of service to the community by students, faculty, staff, and alumni of East Tennessee State University.

Named the 417th Point of Light by the Office of the President of the United States, Volunteer ETSU promotes volunteerism and coordinates the major service projects and activities for students, encouraging thoughtful experiences in service, and challenging participants to actively address the problems we face as a society.

For more information or to become involved in Volunteer ETSU or any of its numerous projects, call 439-4254 or e-mail at vetsu@etsu.edu. Volunteer ETSU is located inside the Center for Student Life and Leadership, lower level of the D.P. Culp University Center.

Housing and Residence Life

Student housing is an integral part of ETSU campus life. On-campus living is attractive, affordable, safe, and convenient and offers many educational opportunities for students. Resident students have increased access to the library; computer labs; extracurricular activities; intercollegiate athletics; health facilities; intramural and recreation programs; other students; lectures; concerts; other campus facilities; services; and programs.

On-campus living offers many ways for residents to experience individual growth and development. Residents have the opportunity to participate in academic and leadership experiences such as: The First Year Program; Leadership House; Residence Hall Association; International Living-Learning Community; National Residence Hall Honorary; Residence Hall Judicial Board; and many residence staff positions. Residents are involved at every level of the housing process.

Residence halls are centrally located and provide an environment for living and learning. University housing includes residence halls/apartments for single students and apartments for family housing. All residence halls have rooms furnished with twin-size beds; desk; chairs; closets; mini-blinds; and telephone and cable TV hookup. Each hall has carpeted hallways for noise reduction; laundry; kitchen and vending facilities; and adjacent parking. Microfridges (combination microwave and refrigerator) are available to rent or students may secure their own. All rooms/apartments are wired for data access. Smoking is prohibited in all campus buildings, including the residence halls and apartments. Private rooms/apartments are available on a first-come, first-served basis.

Trained residence hall staff are available in each hall to assist with the total operation of the hall; enforce rules and regulations; provide programs and activities; advise, counsel and refer students; assist in emergencies; and other assigned duties. The university has adopted lifestyle options and visitation plans which are voted on by each hall at the beginning of each school year. Guests of the opposite sex may be entertained in individual rooms only during those specified visitation hours.

Family/Graduate Housing - Buccaneer Village — A limited number of apartments are available for married or single parents or single graduate students. These include one- and two-bedroom apartments for married or single parents, and a limited number of private efficiency apartments for graduate students. Applications for these apartments require a \$150 deposit. Rent, which includes water, telephone (except for long-distance calls), data access, and cable TV hookup, are payable on a per semester/monthly basis. Electric bills are payable by the month.

Buccaneer Ridge Apartments — Sophomores and above enjoy two- and four-single occupancy bedroom apartment units. Each apartment contains a furnished living area, single bedrooms with double bed, closet, desk, and chest of drawers; kitchen facilities, including full-sized refrigerator, stove, microwave, and garbage disposal; washer and dryer; patio or balcony; and two bathrooms. Each bedroom is provided with an alarm system; telephone, cable TV, and data jack; and individual locks.

Residents enjoy a clubhouse with copier and fax availability; lounging pool; volleyball and basketball courts; exercise room; access gate; and individual leases with no connection fees.

Application Procedure — An application will be mailed to all students approved for admission to the university or an application may be obtained by contacting the Department of Housing and Residence Life. Early application, preferably before April 1, for fall semester and October 1 for spring semester is encouraged. Assignments for fall semester begin in April and mid-December for spring.

A completed application and a \$100/150 reservation/damage deposit is required and accepted at any time. Room/hall assignments are made according to the date of the application and deposit and availability. On-campus students are able to retain their current room or sign for another hall and/or room each semester.

For housing costs, please see "Housing Fees" in the section entitled "Expenses."

The Department of Housing and Residence Life is located in room 108, Burgin E. Dossett Hall. The mailing address is:

P.O. Box 70723
East Tennessee State University
Johnson City, TN 37614-1710
Telephone (423) 439-4446
Fax: (423) 439-4690
e-mail: housing@etsu.edu

Campus Recreation

The Department of Campus Recreation, a unit in the Division of Student Affairs, provides a wide range of physical activities and recreational sports for the entire ETSU community. Five types of programs are offered: fitness, intramural sports, non-credit instruction, outdoor adventure, and sports clubs.

All programs operate out of the Center for Physical Activity, a "state-of-the-art indoor and outdoor complex designed for the exclusive recreational use of the ETSU student body and current employees. The "CPA" was built and operates with student fee dollars. Indoor spaces include: basketball/soccer/volleyball courts, climbing wall, group exercise/martial arts studio, pool, racquetball/squash courts, and weight rooms (huge weight room). There is also a casual care service, equipment room, locker room, and personal training suite. Directly adjacent to the CPA is the Basler Challenge course with its towers, walls, and low elements. Also located beside the building are two lighted ballfields that can accommodate a range of team sports. The project's intent will improve the connection students have to ETSU and give them a more complete collegiate experience.

Fitness programs are the most popular types of recreational activity on any college campus. The CPA boasts a 15,000-square-foot weight room with cardiovascular stations, free weights, and weight machines. Aerobic/group exercise classes are scheduled daily in the CPA's aerobics/martial arts studio. There is also a personal training service with fitness testing, exercise prescription, and supervised workouts. Lap swimming will be scheduled three times daily during the week. Aqua aerobics classes are scheduled as well.

Varieties of team and individual intramural sports are scheduled each semester. Traditional fall team sports are flag football and volleyball. Spring team sports are basketball and softball. The four major leagues play four game regular seasons plus playoffs and contest Mens's A, Men's B, Women's, and Co-Rec divisions. Each year's individual sports includes two road races and a golf tournament in the fall, and a bench press contest, racquetball, and tennis in the spring. Campus Recreation is also very involved in Homecoming in the fall.

Non-credit instruction classes provide ETSU students with the opportunity to learn new physical activities and recreational sports from qualified instructors. The unit has offered karate, kayaking, rock climbing, and swim lessons and intends to expand into racquet sports, SCUBA, and self-defense in the near future.

The Basler Challenge Course is the centerpiece of the University's outdoor-adventure program. The course includes an Alpine Tower, Carolina Straight Wall, and 12 low elements. Campus Recreation stages leadership and team building seminars for academic departments and student groups. For more information or to schedule a seminar, call 439-4266. There are also times for individual students to challenge the tower and climb. All gear is provided. Backpacks, sleeping bags, and tents can be rented from room 230, Brooks Gym. The department stages skydiving, paintball, skiing, and whitewater rafting most years.

Student leadership and volunteerism in an athletic environment are the focus of sports clubs programs. Individual clubs promote competition, instruction, and social interaction. To learn about currently functioning clubs, or to establish a new one, contact the Campus Recreation Office.

Campus Recreation is one of ETSU's largest employees of student labor. The unit participates in all of the university's work programs - APS, FWSP, RSWP, and temporary support. Graduate assistant positions are also available.

Preference is given to students majoring in exercise science or sports management, but any ETSU student would find Campus Recreation to be a challenging, rewarding, user-friendly environment. Studies have indicated that students who are employed on campus persist to graduation better than those who work off campus or do not work at all. Please inquire early in the semester about possible employment opportunities.

There are two options for spouse and dependent use of the CPA. Spouse and dependent memberships may be purchased at the equipment room. Such memberships are available only to the immediate family members of currently enrolled students and currently employed faculty and staff members. Pricing was established based on the \$70 student fee increase and other university fee structures and the market value of commercial fitness and recreation centers in the Tri-Cities. Dependents 17 and under must be accompanied by a parent at all times in the CPA. Memberships for dependents 18-21 may also be purchased and those adult users will be issued a picture ID. Access will not be made available to dependents 22 and over. A Saturday morning family program will be held weekly from 9 a.m. - 11 a.m. free of charge. Families will be able to use the pool, climbing wall, and gyms. There will also be instructional programs and special events scheduled on a regular basis. Children must be accompanied by their parents at all times and proper ETSU ID will be required for admission.

Participation in any type of positive activity is an important part of the collegiate experience. However, there are risks involved in any and all sports. Persons injured while participating in recreational activities are responsible for their own medical expenses. ETSU does not carry any type of blanket insurance coverage. The Department of Campus Recreation takes a wide range of precautions to protect its participants, but everyone is encouraged to purchase some type of comprehensive insurance protection.

It is the goal of the Department of Campus Recreation to provide a comprehensive service schedule of events, programs, and services for the entire ETSU community. The program is all-inclusive and previous athletic experience or skill is not a prerequisite for participation. For more information, call 439-7980 or come by the department office in the new Center for Physical Activity.

Graduate Degree Programs and Coursework

Program and Course Information

The following sections give details of degree requirements, degrees offered in the department, and the Program Coordinators. A narrative description of the department and program admission requirements will follow the faculty. Specific courses are also listed.

The following courses are available under individual department offerings but cannot be counted toward the minimum requirements for the degree. They are designed to provide supervision and assistance to graduate assistants and to monitor their assignments.

Supervised Experience in Teaching (XXXX-5019)

Supervised Experience in Research (XXXX-5029)

Supervised Experience in Administration (XXXX-5039)

Faculty Rosters

The faculty rosters appearing in the following sections contain alphabetical listings of graduate faculty members participating in each program. The faculty listing that appears in the back of the catalog provides an overall listing of graduate faculty. Each name is followed by rank, title, and places of study.

Art and Design

Master of Arts Master of Fine Arts

Department of Art and Design in the College of Arts and Sciences

Ralph Slatton, Department Chair

121 Ball Hall
Box 70708
(423) 439-4247
e-mail: slatton@etsu.edu

Catherine Murray, Graduate Coordinator

109 Art Annex
Box 70708
(423) 439-8303
e-mail: murrayc@etsu.edu

Faculty:

Don Davis; Anita DeAngelis; David Dixon; M.Wayne Dyer;
Vida J. Hull; Scott Koterbay; Patricia Mink; Catherine Murray;
Peter H. Pawlowicz; Ralph Slatton; Michael A. Smith.

ETSU's Department of Art and Design is an accredited institutional member of National Association of Schools of Art and Design. Additionally, the department holds membership in the College Art Association and other professional art organizations.

The Department of Art and Design, within the framework of the College of Arts and Sciences, has the responsibility to provide educational opportunities of high quality in the professional art disciplines. Our mission is to prepare and produce students who are equipped to function capably in their chosen area of the visual arts.

The department offers two graduate degrees: master of arts (M.A.) and master of fine arts (M.F.A.). The M.A. degree may be taken in art education, art history, or in studio art. The M.F.A. is a degree in studio art with specializations available in the following areas: painting, drawing, sculpture, printmaking, graphic design, photography, ceramics, fibers, or jewelry and metalsmithing. The program leading to the degree of M.F.A.

has as its goal, competence in selected areas of the art field and is strongly oriented toward creative production. The M.F.A. is considered the terminal degree for college or university studio teaching and/or professional work in the field.

Program Admission Requirements

Application deadline: March 15 for Fall Semester

The undergraduate record will be reviewed by the departmental graduate selection committee. To be admitted to the program, the applicant must have:

1. An undergraduate minimum average of 3.0 in art on a 4.0 scale.
2. Deficiencies may require make-up work without graduate credit.
3. Demonstration of a capacity to pursue graduate work in the department.

Master of Arts – Prospective M.A. candidates must hold a bachelor's degree. All candidates for the graduate program are strongly encouraged to arrange a personal interview. Those individuals at a great distance may arrange a telephone interview with the appropriate faculty. The applicant for the M.A. concentration in Art History should take the Graduate Record Exam and have a reading knowledge of one foreign language (French, German, Italian, or another that is appropriate for the student's proposed area of study). The applicant for the M.A. concentration in Studio Arts must submit 15 slides and the additional materials as listed below for the M.F.A. candidate.

Master of Fine Arts – The prospective candidate for the M.F.A. degree must have a bachelor's degree with a major in art or equivalent evidence of proficiency. Candidates are encouraged to arrange a personal interview. In addition to the materials required by the School of Graduate Studies, the student should submit the following application materials to the School of Graduate Studies:

- A cover letter to the Graduate Selection Committee with the Area of Specialization clearly identified. Nine Areas of Specialization are listed above. Include in the letter the GPA of all completed undergraduate courses in art (studio, art history, or art education). This should be averaged on a 4.0 scale.
- Resume. Indicate exhibitions, prizes, work experience, student activities or honors, or other activities.
- Three letters of recommendation – preferably from individuals conversant in the visual arts.
- Artist's Statement – no more than 200 words – indicating the focus of the images presented.
- 20 slides (35 mm – no glass mounts – suitable for use in a Kodak carousel projector). Work should be submitted following a sequence of older to newer work. Can be accompanied by a narrative statement – no more than 200 words – indicating the focus of the images presented in the slides.
- Identification Sheet (for slides) indicating title, media, size, and year.
- SASE for the return of slides. Correct postage must be included. Work submitted without proper return postage may be destroyed.

Guidelines for Slide Submission.

The slide portfolio is the primary means of evaluating the potential graduate student in the studio areas. A good slide presentation indicates a candidate's ability to focus studies on a particular theme or concept. All slides should be submitted in a clear plastic sheet in the proper viewing position, i.e., top side up, and in the same order as the Identification Sheet, from older to newer work. Do not submit work in a binder or carousel. No more than one close-up and alternative view may be represented by detail

slides. If more than 20 slides are submitted, only the first 20 will be reviewed.

Each slide must be labeled with the following information (clearly printed or typed):

- First and last name of applicant.
- Title of work, medium, size (HxWxD), date.
- Clear indication of top of slide or red dot in the lower left-hand corner of the slide mount.
- Slide number to correspond to Identification Sheet.

Please prepare quality slides to accurately document the artwork. Common mistakes are out-of-focus images, items behind the art that distract from the image, poorly framed slides, incorrect film and lighting, shadows that are too apparent, etc. Should an applicant wish to submit images in a format other than 35mm slides, she or he should contact the department to learn whether the proposed format is acceptable.

Review for Admission to Candidacy

Students are not candidates for a degree until they have passed a review process. Review for admission to candidacy will take place after the student has completed a minimum of 12-15 semester hours in residence.

Admission to candidacy for the degree is based on the recommendation of the prospective candidate's graduate committee. The committee is composed of three faculty members. The committee will review the student's work, grades, and progress and make one of the following recommendations:

1. Student accepted for candidacy (no restrictions).
2. Student not accepted (option to reapply only twice at nine semester hour intervals).
3. Student not accepted (no option to reapply)

Minimum Degree Requirements

The major area advisor will determine requirements other than those specified below after reviewing the undergraduate record and consulting with the student. To remain in good standing, a graduate student must maintain a minimum grade point average of 3.0 (B) overall.

Master of Arts, Studio – A minimum of 30 semester credits is required, apportioned as follows: 15 semester hours in a major area, 3 semester hours in art history, 6 semester hours of advisor-recommended studio electives, 3 semester hours in Art 5950 (Methods of Research), 3 semester hours in Art 5960 (Thesis).

Studio candidates must mount a thesis exhibition of acceptable professional quality; a supporting thesis paper must be written in conjunction with the thesis exhibition. All candidates must defend their work, visual and written, in a final oral examination.

Master of Arts, History – A minimum of 30 semester credits is required, apportioned as follows: 24 semester hours in Art History, 3 semester hours in Art 5950 (Methods of Research), 3 semester hours in Art 5960 (Thesis). All candidates must defend their written thesis in a final oral examination.

Master of Fine Arts, Studio – The M.F.A. program requires at least one academic year in continuous residence. A minimum of 60 credit hours is required, apportioned as follows: 42 semester hours in graduate studio classes, 30 of these must be in major area; 9 semester hours in art history; 3 semester hours in elective classes; 3 semester hours in Art 5950 (Methods of Research); 3 semester hours in Art 5960 (Thesis).

A project proposal or statement of intent shall be submitted to the candidate's committee for approval at least one semester prior to beginning work on the creative thesis. The M.F.A. creative thesis includes: the presentation of an exhibition of original creative work and a supporting thesis paper. All candidates must defend their work, visual and written, in a final oral examination. All M.F.A. candidates are required to provide the Department of Art and Design with a set of slides of the work in their graduate exhibit before graduation.

Biology

Master of Science in Biology with concentrations in Biology and Microbiology

Department of Biological Sciences/Health Sciences in the Colleges of Arts and Sciences and Public and Allied Health

The Biology master of science degree program is designed to provide a broad-based education in biology while developing research skills. Areas of particular interest to the faculty include anatomy, biochemistry, cell biology, conservation biology, developmental biology, ecology, genetics, immunology, microbiology, natural history, physiology, and systematics. Students successfully completing the M.S. program are encouraged to seek doctoral degrees. The program has some financial support available in the form of Graduate Assistantships and Tuition Scholarships. Decisions on offers of support are initiated at the end of March for the following academic year. In order to receive full consideration, applicants are encouraged to submit all materials by mid-March although support is sometimes available for students who apply after that date.

Program Admission Requirements

Students applying for admission to graduate study:

1. Must submit a general GRE score
2. Must have a 3.0 overall grade point average (4.0 system) in mathematics and science courses
3. Must have an undergraduate major in a biological science discipline, with supporting courses in general chemistry, one year of organic chemistry (microbiology concentration will accept one semester of organic and one semester of biochemistry), and one year of physics
4. A course in calculus and/or a course in probability and statistics is recommended.
5. Must have 2-3 letters of recommendation submitted on their behalf.

Core Course Requirements

The core requirements are as follows:

1. All students must take Bibliographic Research (5600) their first fall semester.
2. MDED 5010 Biometry and Biomedical Computing I is required.
3. Two semesters of Seminar (5700) are required. (All students are expected to attend departmental seminars regularly.)
4. Students will take at least two of the Topics courses (5100, 5200, 5300, 5400). Selection of the appropriate courses will be made in consultation with the student's advisory committee and/or the graduate coordinator.
5. BIOL 5960 Thesis is required.

The student will choose a major professor as early as possible, at least by the end of the first semester. To facilitate this selection, during their first semester students will interview faculty members to determine their research interests and explore the potential for student participation in ongoing research programs. The major professor, in consultation with the student, recommends at least two additional members of the student's advisory committee. Persons from outside the program may also be added. The advisory committee will meet with the student to set up the plan of study based on the student's background and interests. The program must be approved by one of the program coordinators. The student's advisory committee will meet with the student a minimum of once per semester to assess progress, check the plan of study being followed, make suggestions and provide supervision as needed. The advisory committee's composition is not binding, and it may be changed upon written justification. It is the student's responsibility to maintain acceptable progress toward the completion of all degree requirements.

All students pursuing an M.S. in Biology are required to complete a thesis. A minimum of 30 semester credits are required for the degree. The thesis (writing) comprises three of the 30 credits. BIOL 5900 and/or 5910 may be taken for a total of nine credits.

Before admission to candidacy, the student must meet the minimum requirements of the Graduate School and the student's advisory committee. Before graduation the student must satisfactorily complete a written qualifying examination preferably near the end of the third semester. One reevaluation is allowed. Failure to complete the evaluation satisfactorily will result in removal from the program. The evaluation will include emphasis on interrelationships, problem solving, and analysis.

Final evaluation involves an oral presentation of the thesis and an oral examination in the area of specialization.

Concentration in Biology

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Dan Johnson, Ph.D., Department Chair

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Concentration in Microbiology

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Michael Gallagher, Ph.D., Department Chair

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Faculty:

Ranjan Chakraborty; Michael Gallagher; Bert Lampson; Foster Levy; Eric Mustain; Laraine Powers.

Biomedical Science

Biomedical Science
James H. Quillen College of Medicine

Master of Science in Biomedical Science
with concentrations in
Anatomy, Biochemistry, Microbiology,
Pharmacology, and Physiology

Doctor of Philosophy in Biomedical Science
with concentrations in
Anatomy, Biochemistry, Microbiology,
Pharmacology, and Physiology

Dr. Mitchell Robinson, Assistant Dean for Graduate Studies and Program Director

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Beverly Sherwood, Admissions Coordinator

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Biomedical Science Graduate Committee. The committee makes recommendations concerning the academic program, curriculum, recruitment, student advisement, and financial assistance and serves as the admissions committee for the Ph.D. program.

Member E-mail	Department Represented Phone
Dr. Mitchell Robinson (chair) robinson@etsu.edu	Asst. Dean 439-2028
Dr. Paul Monaco monaco@etsu.edu	Anat. & Cell Biology 439-2009
Dr. Sankhavaram Panini panini@etsu.edu	Biochem. & Molec. Biol. 439-8014
Dr. Robert Schoborg schoborg@etsu.edu	Microbiology 439-6295
Dr. K. Jane Mayberry-Carson mayberry@etsu.edu	Microbiology 439-6227
Dr. Richard Kostrzewa kostrze@etsu.edu	Pharmacology 439-6321
Dr. Tom Ecay ecay@etsu.edu	Physiology 439-2046
Dr. David Chi chi@etsu.edu	Clinical departments 439-6382

The Biomedical Science Program of the James H. Quillen College of Medicine offers courses of study leading to the Master of Science and the Doctor of Philosophy in Biomedical Science with concentrations in five basic science disciplines: anatomy and cell biology, biochemistry and molecular biology, microbiology, pharmacology and physiology. The program is designed to prepare students for professional careers in research in the life sciences. Graduates find career opportunities in a variety of settings including universities, health science centers, health care industry, pharmaceutical and biotechnology companies.

Master's Degree Requirements

Admission Requirements. Applicants to the M.S. program must select a concentration from one of the five basic science areas: anatomy, biochemistry, microbiology, pharmacology, and physiology. Applications are reviewed by the faculty in the appropriate basic science area, and admission decisions are made on the basis of an overall evaluation of the applicant's ability to complete advanced study in Biomedical Science. Particular attention is paid to the applicant's cumulative GPA, performance in physical science and natural sciences courses, scores for the Graduate Record Examination and letters of recommendation. A personal interview may be required.

Note of Course Starting Dates. Some graduate courses in biomedical science are taught in conjunction with the James H. Quillen College of Medicine, and course starting dates coincide with those of the College of Medicine, usually at least two weeks prior to other graduate courses.

Program of Study. The planned program of study will be based on the student's prior academic preparation, the student's stated interests and goals, and the specific background required for demonstration of competence in the area of biomedical sciences. A minimum of 30 credits of graduate coursework is required for the master's degree. At least 22 of the 30 credits must be earned in residence at East Tennessee State University. Additional hours may be required for completion of the program.

The student will be required to complete successfully a preliminary examination, a computer requirement, a thesis, and a final examination. (See also Degree and Graduation Requirements in the front matter of this catalog.)

Course Requirements. The core curriculum is designed to provide a broad multidisciplinary background for all students in the Biomedical Science graduate program.

Core courses

BIOM 5010	Biomedical Science I - Molecular Organization of Cells	3 credits
BIOM 5020	Biomedical Science II - Gene Expression and Regulation	3 credits
BIOM 5030	Biomedical Science III - Cellular Anatomy and Physiology	3 credits
BIOM 5040	Biomedical Science IV - Cell and Organ Interactions)	3 credits
MDED 5010	Biometry and Biomedical Computing I	3 credits
BIOM 5300	Scientific Ethics	1 credit
Core Total	.....	16 credits

Thesis Research	3-6 credits
Concentration – Two advanced courses	6 credits
Guided electives – One departmental seminar course	2 credits
General electives	0-3 credits

M.S. minimum total **30 credits**

Advisory Committee. A temporary advisor will be designated at the time of admission to assist the student in planning the initial registration. After the student has completed 9-12 semester hours of graduate coursework, the graduate coordinator for the major area of study will meet with the student to appoint an advisory committee consisting of three members of the graduate faculty: two members from the major area of study and one member from a related area of study. The advisory committee chair must hold full or associate graduate faculty status. The graduate advisory committee will assist the student in planning the remainder of the program of study, supervise the research, and conduct the final examination.

Admission to Candidacy. When 9-12 semester hours of graduate coursework have been completed successfully and the computer requirement has been met, the student may apply for admission to candidacy.

Thesis Requirements. A thesis is required for the master of science degree in biomedical science. Students should follow the guidelines for the thesis option in this catalog.

Doctor of Philosophy Degree Requirements

A unique feature of the Ph.D. program is its multidisciplinary character, giving students a broad choice of faculty and laboratories for their research training. Students are admitted centrally rather than to

departmental graduate programs and need not select an area of concentration until the end of the first year of study. An interdisciplinary core curriculum covers the basic knowledge and skills necessary for research in all areas of the biomedical sciences. Students become familiar with the laboratory environment of different faculty through a flexible program of laboratory rotations. After choosing a research advisor, students receive individualized research training. There are currently over 60 faculty, from five basic science and seven clinical departments, participating in the graduate program.

Admission Requirements. All applications for admission to the Ph.D. program will be reviewed by the Admissions Committee of the Biomedical Science Program. Admission decisions are made on the basis of an overall evaluation of the applicant's ability to complete advanced study in Biomedical Science. Particular attention is paid to the applicant's cumulative GPA, performance in physical science and natural sciences courses, scores for the Graduate Record Examination and letters of recommendation. A personal interview may be required.

Program of Study. The course of study leading to the Ph.D. degree in biomedical sciences will be designed in accord with the student's prior training, the student's stated interests and goals, and the specific background required for demonstration of competence in an area of biomedical science. A minimum of 60 semester hours are required beyond the baccalaureate degree. For admission to candidacy, at least 30 of the minimum 60 semester hours must be earned in courses at the 6000 and 7000 level. More than the minimum hours may be needed for completion of the degree program.

Note of Course Starting Dates. Some graduate courses in biomedical science are taught in conjunction with the James H. Quillen College of Medicine, and course starting dates coincide with those of the College of Medicine, usually at least two weeks prior to other graduate courses.

Non-degree students. Non-degree students may register for graduate courses in the biomedical science program with permission of the course director and assistant dean for graduate studies. Graduate courses that are taught in conjunction with the James H. Quillen College of medicine are not open to non-degree students. Any exception must be approved by the dean of the College of Medicine.

Course Requirements. The core curriculum is designed to provide a broad multidisciplinary background for all students in the Biomedical Science graduate program.

Core courses

BIOM 6010	Biomedical Science I - Molecular Organization of Cells	3 credits
BIOM 6020	Biomedical Science II - Gene Expression and Regulation	3 credits
BIOM 6030	Biomedical Science III - Cellular Anatomy and Physiology	3 credits
BIOM 6040	Biomedical Science IV - Cell and Organ Interactions	3 credits
BIOM 6210	Scientific Communication I	1 credit
BIOM 6220	Scientific Communication II	1 credit
BIOM 6110	Introduction to Biomedical Research	1 credit
BIOM 6120	Laboratory Rotations	3 credits
MDED 6010	Biometry and Biomedical Computing I	3 credits
BIOM 6300	Scientific Ethics	1 credit
Core Total	.....	22 credits

Dissertation Research	15 - 21 credits
Concentration –	
Three advanced courses	minimum 9 credits
Guided electives –	
Two departmental seminar courses	4 credits

General electives minimum 4 credits

Ph.D. minimum total 60 credits

Advisory Committee. An academic advisor will be appointed at the time of admission by the assistant dean for graduate studies and will assist the student in planning the program of study through the first year. Each student will select a research advisor following completion of the laboratory rotation program. The research advisor will assume primary responsibility for the student's academic and research progress. Prior to the beginning of the second year of study, students will form a graduate advisory committee. The committee will consist of at least five members of the graduate faculty, with no more than three members from one department. The student's research advisor will serve as chair of the committee and must hold full or associate graduate faculty status. Other members of the committee will be selected by the student and research advisor and will be approved by the departmental chair and assistant dean for graduate studies. The committee will be responsible for overseeing the student's overall academic program, including the program of study, preliminary examination, advancement to candidacy and preparation and defense of the dissertation. The advisory committee should meet formally with the student at least once each year to review the research and academic progress.

The Preliminary Examination. A preliminary examination may be administered at the discretion of the advisory committee after one semester of enrollment. The examination will be designed to evaluate the student's potential to complete a total planned program and to aid in planning the program of study.

Change in Program of Study. Changes in the planned program of study for candidacy must be approved by the dean of the School of Graduate Studies. Forms for program changes are available in the School of Graduate Studies office.

Residence Requirements. A period of one academic year (two continuous semesters) will be required in keeping with the needs of the program and with accreditation standards. A student may be assigned to study at an off-campus site for special programs. This study must be approved in advance by the student's graduate advisory committee to be applied toward residency requirements. No more than nine semester hours of credit may be earned in special programs.

Time Limits. Credit received more than seven years prior to the awarding of the degree will not be accepted as part of the degree requirements.

Qualifying Examination. The qualifying examination will be administered by the advisory committee after the first year and before the end of the second year of continuous enrollment. Successful completion of the examination should demonstrate that the student has obtained a breadth of knowledge in biomedical science, utilizing the information obtained in the core curriculum. The student should also demonstrate competence in researching the literature and organizing and presenting information on a topic of current importance. The format of the written examination will be a research proposal similar in style to a research grant application. The topic will be selected by the student and approved in advance by the committee. The topic should be original and not identical to the intended research. An oral examination, in which the student defends the written research, follows successful completion of the written requirement.

The Final Examination. The final examination will be oral and will be devoted to an evaluation and defense of the student's dissertation. A student must be a formally admitted candidate for the doctorate for one full semester before being eligible to take the final examination. Students will not be allowed to complete a program during the same semester in which they are formally admitted to doctoral candidacy. The examination for defense of the dissertation will not be scheduled until the student's dissertation is accepted by the graduate advisory committee. However, this approval and the final oral examination must both take place by the deadline in the university calendar. Each doctoral student's final oral

examination will be publicly announced by the School of Graduate Studies. It will be an open examination, and all interested persons will be encouraged to attend.

Graduate Faculty Representation at Dissertation Defenses.

The defense of the dissertation is a formal gathering at which the doctoral candidate presents and defends her or his research to members of the university community. The defense is a capstone event in the development of graduate students as scholars, professionals, or future teachers and must entail open and fair exchange of scholarly views. A member of the graduate faculty from outside the candidate's committee and department must be present at the defense to monitor the process. The procedure to be followed in scheduling an oral defense and the format for the graduate faculty representative's narrative report are available in the Graduate Studies office.

Dissertation. All doctoral candidates must complete a dissertation as a major requirement for the Ph.D. degree. The dissertation topic will be selected by the candidate with the advice and approval of the graduate advisory committee. The student must present a prospectus describing the research project for review and approval by the graduate advisory committee. After the dissertation topic has been researched, written, and accepted by the committee, it must be prepared in the proper form and submitted to the School of Graduate Studies for approval at least one week prior to graduation. The School of Graduate Studies has been accepting dissertations in both electronic and paper formats. ETSU has approved a requirement for electronic submission, which will begin when the pilot submission program is completed. Students must submit dissertations in the format prescribed at the time of submission. Students seeking exemption from electronic submission of the dissertation must be prepared to follow an alternate submission schedule and will be responsible for binding fees and microfilming costs. The School of Graduate Studies publishes a Guide to the Preparation of Theses and Dissertations, which is available in the Graduate Studies Office along with specific guidelines for submission and review of the manuscript.

Institutional Review Board. Student research involving human subjects must be approved by the East Tennessee State University Institutional Review Board prior to initiation of the research. This is necessary to protect the rights of human subjects involved in physical, psychological, or social research. Following approval of the proposed research by the review board, the subject involved must be informed of the study and consent to participate. The application forms for research involving human subjects and review of such research projects are available in the Office of Research and Sponsored Programs, 1110 Seminole Drive.

Evaluation. The evaluation of an advanced graduate student is a function of the instructors and the student's graduate advisory committee. The latter has full authority for program planning and the evaluation of oral and written preliminary and qualifying examinations, provided that all university and departmental requirements have been met.

Anatomy and Cell Biology

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Richard G. Skalko, Ph.D., Department Chair

Department of Anatomy and Cell Biology
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Faculty:

Mark J. Airhart; Ronald H. Baisden; Dennis M. Defoe;
Fred E. Hossler; Paul J. Monaco; Ellen M. Rasch; Uta B. Schambra;
Richard G. Skalko; Michael L. Woodruff.

The Department of Anatomy and Cell Biology consists of 10 faculty with a diverse range of interests. Research in the department encompasses many areas, including: neurobiology, neural plasticity, microvasculature and vascular corrosion casting, interactive computer-assisted instruction, developmental biology, developmental pharmacology and toxicology, quantitative cytochemistry of DNA, and umbilical cord and placental development.

Biochemistry and Molecular Biology

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Michael Sinensky, Ph.D., Department Chair

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Faculty:

W. Scott Champney; M. Lou Ernst-Fonberg; David A. Johnson;
Phillip R. Musich; Sankhavaram Panini; Mitchell Robinson;
Antonio Rusinol; Michael Sinensky; Douglas Thewke; Yue Zou.

The objective of the Graduate Program in Biochemistry is to prepare students for careers as independent investigators in biochemistry. This includes research into diverse topics such as gene structure, enzymology, lipid and protein biosynthesis, protein-lipid interactions, gene expression, lipid metabolism, cell growth regulation and molecular immunology. The Department of Biochemistry offers a variety of advanced courses to graduate students in biomedical sciences and is responsible for teaching medical biochemistry to first-year medical students. The faculty place a great deal of importance on the responsibility for training new scientists to work in academic, and biotechnological research settings.

Microbiology

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Faculty:

Donald A. Ferguson; John J. Laffan; William R. Mayberry;
K. J. Mayberry-Carson; Robert V. Schoborg; Stephen Trent.

The Microbiology Department consists of six faculty with a diverse range of interests. Research in the department encompasses many areas of microbiology including: immunology, genetics, epidemiology, virology, speciation, molecular biology, and infection. The faculty and students collaborate on topics of mutual interest within and between departments. For example: molecular mechanisms of virulence, bacterial adhesion, and identification of causative agents of disease. The faculty receive grant support from a variety of external sources to support their research. The department provides a relaxed environment, individualized training, and opportunity for extensive interaction with all faculty members.

Pharmacology

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Faculty:

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Donald B. Hoover; Richard Kostrzewa; Michael Miyamoto;
Peter Rice.

Physiology

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Faculty:

Thomas W. Ecay; William L. Joyner; Brian P. Rowe; Krishna Singh;
Barbara B. Turner; Carole A. Williams; Robert Wondergem.

The department emphasizes preparation for a career in biomedical research as the major component of graduate education. Research interests in the department include cardiovascular physiology with specific interest in microcirculation and hypertension. Several members of the department are involved with studies of the central nervous system, with specific interests in blood pressure control and steroid actions. Two faculty members conduct electrophysiology experiments and their specific interests include control of liver cell volume and cystic fibrosis.

Business

Master of Accountancy

Master of Business Administration

Master of Public Administration

Graduate Certificate in Business Administration

Graduate Certificate in Health Care Management

Graduate Certificate in Entrepreneurial Leadership

Linda Garceau, Dean

Martha M. Pointer, Associate Dean for Graduate Studies in Business and Technology

W.F. Mackara, Director, MBA Program

Paul C. Trogen, Director, Public Administration Program

Gary D. Burkette, Director, Master of Accountancy Program

(423) 439-5314 Fax: (423) 439-5274

Business and Technology Faculty:

Jafar Alavi; Wayne Andrews; Murray S. Anthony; Gordon L. Bailes; Gene Bailey, Jr.; Martin L. Barrett; Edward A. Baryla, Jr.; Paul Bayes; Gary Berg; Hugh Blanton; Gary D. Burkette; Ting-Heng Chu; Andy Clark; Marian Clark; Dennis Coffey; Cheryl Cornett; Terry A. Countermine; Andrew J. Czuchry; Steve Dennis; Douglas P. Dotterweich; Michaela Driver; Michael D. Everett; Lon S. Felker; James G. Frierson; Donald W. Gotterbarn; Jim Hahs; James Hales; F. Steb Hipple; Peter Hriso; Carroll Hyder; Keith Johnson; Jamie Kridler; Kurt H. Loess; Elizabeth Lowe; W.F. Mackara; Michael P. Marchioni; Joe Mason; Thomas E. McKee; Michael M. McKinney; Phillip E. Miller; Robert Morgan; Janet Neal; Phillip Pfeiffer IV; James C. Pleasant; Martha M. Pointer; Larry J. Prather; John Quigley; Robert R. Riser; Joel Ryman; Donald B. Sanderson; Alison Schaefer; Kent N. Schneider; Donald Shemwell; Paul Sims; Jon L. Smith; Allan Spritzer; Jean G. Stead; W. Edward Stead; Mark E. Steadman; Charles Story; Kerry D. Swinehart; Karen Tarnoff; Neil A. Thomas; Primus Tillman; Paul C. Trogen; Craig Turner; John Vaglia; Ruth Verhegge; Steven Wallace; Ronald L. Weir; Mahmoud M. Yasin; Ugur Yavas; Qing Yuan.

The College

The mission of the ETSU College of Business and Technology is to provide high-quality educational experiences to equip students, other individuals and organizations, primarily within the Southern Appalachian region, with the abilities necessary to succeed in business, government and related professions increasingly engaged in global activities; and leadership in supporting regional, national, and international constituencies by collaborating for the progressive development of business, government, health care systems and the professions.

The College of Business and Technology includes seven departments: Accountancy; Computer and Information Sciences; Economics, Finance and Urban Studies; Family and Consumer Sciences; Management and Marketing; Military Science; and Technology. The college offers six professional master's degree programs: master of business administration (M.B.A.), master of accountancy (M.Acc.), master of public administration (M.P.A.), Master of Science in Computer Science (M.S.), Master of Science in Technology (M.S.), Master of Science in Clinical Nutrition (M.S.), and graduate certificates in business administration (G.C.B.A.) and health care management (H.C.M.C.). The College's business administration and accountancy programs are fully accredited by AACSB International – The Association to Advance Collegiate Schools of Business.

The graduate business and technology programs benefit from resources provided by the Center for Banking, Bureau of Business and Economic Research, Small Business Development Center, Center for Management and Professional Development, Center for Economic Education, the Allen and Ruth Harris Chair of Excellence in Management, and the AFG Industries Chair of Excellence in Business and Technology, all based in the College of Business and Technology.

The College of Business and Technology supports local chapters of several professional student organizations: Beta Gamma Sigma, the national business honor society; Beta Alpha Psi, the national Accounting, Finance, and Information Systems Honor Society; and the City Management Association of Graduate Students.

Master of Business Administration Degree

Linda Garceau, Dean

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Faculty:

See College of Business and Technology

M.B.A. Program

The master of business administration (M.B.A.) program offers men and women an opportunity to advance their knowledge and preparation for positions of responsibility in business or not-for-profit institutions. The M.B.A. program is fully accredited by AACSB International.

The M.B.A. degree is recognized as the key to success in both large and small organizations. It is suited to graduates in engineering, science, technology, health care, the liberal arts, and other non-business areas, as well as students with undergraduate degrees in business. The M.B.A. is a general, broad-based degree program that incorporates and integrates study of the organizational, financial, and operational management of organizations; the global economic, technological, and information environment; and the production and marketing of goods and services. Emphasis is given to the strategic view of the organization, teamwork, and effective problem solving.

Admission Requirements

A student applying to the M.B.A. program must be eligible for admission to the university as a graduate student and must meet the admission criteria for the program. The student must submit transcripts of all academic work previously completed and scores on the Graduate Management Admissions Test (GMAT). Admission criteria include the applicant's undergraduate grade point average and satisfactory scores on the GMAT. The applicant is presumed to have computer literacy and an understanding of mathematics. Questions relating to admission requirements should be addressed to the Associate Dean for Graduate Studies in Business and Technology.

Students admitted to other graduate programs in the university may enroll in selected graduate business courses if appropriate course prerequisites have been completed. Non-degree students, visiting students, and applicants awaiting admission to the M.B.A. program may not register for graduate business courses without prior approval of the Associate Dean for Graduate Studies in Business and Technology.

Course Requirements

M.B.A. Foundation Courses*

ACCT	5000	Essentials of Accounting	3 credits
ECON	5000	Essentials of Economics	3 credits
ECON	5010	Essentials of Statistics	3 credits
FNCE	5000	Essentials of Finance	3 credits
MGMT	5010	Essentials of Management	3 credits
MKTG	5010	Essentials of Marketing	3 credits
MGMT	5020	Legal & Social Environment	3 credits
MGMT	5030	Quantitative Analysis for Operations Management	3 credits

Maximum semester credits 24 credits

M.B.A. Core Courses

Overview and Tools:

BADM	5100	Strategic Management Process	3 credits
BADM	5120	Managing Organizational Change	3 credits
BADM	5140	Research Methods & Statistics	3 credits
BADM	5160	Information Infrastructure	3 credits

Organization and Environment:

BADM	5300	Economic & Financial Decision Making	3 credits
BADM	5320	Operations Strategy	3 credits
BADM	5340	Human Resource Strategy	3 credits
BADM	5360	Financial Planning & Control	3 credits
BADM	5380	National and Global Environment	3 credits
BADM	5400	Market Strategy	3 credits

Electives and Capstone:

Electives**		.....	6 credits
BADM	5800	Strategic Experience***	3 credits

Total semester credits 39 credits

* For those students with recent formal academic preparation in business administration, one or more foundation courses may be waived by the Director of Graduate Studies in Business.

** All electives must be at the graduate level and must be approved by the Director of Graduate Studies in Business prior to registration. The six credits of electives will be selected to meet students' special interests and needs and may include nonbusiness courses. Foundation courses may not be taken for elective graduate credit, and no more than one elective may be taken from courses co-listed with undergraduate courses.

*** This course fulfills the Culminating Experience requirement in the M.B.A. program.

Entering M.B.A. students attend a one-day retreat at which they explore teamwork techniques and develop a shared vision of the program for presentation to faculty and program administrators.

M.B.A. students, with the approval by the Associate Dean for Graduate Studies in Business and Technology, may declare an emphasis in their program. Possible areas of emphasis include but are not limited to accountancy, finance, health care management, environmental management, marketing, public administration, and technology. Interested students should submit a proposal describing their desired emphasis no later than the semester in which they complete 21 semester credits of M.B.A. core coursework.

The length of the M.B.A. program will depend upon a student's prior academic work and the number of courses to be taken per semester. The well-prepared full-time student can complete the program in four semesters. Part-time students can complete the program through evening classes at the ETSU main campus. Students can take selected courses at ETSU at Kingsport, ETSU at Bristol, or, via the instructional television system, at sites throughout Northeast Tennessee.

Master of Accountancy Degree

Linda Garceau, Dean

Martha M. Pointer, Associate Dean for Graduate Studies in Business and Technology

214 Sam Wilson Hall

Box 70699

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Gary D. Burkette, Director of Master of Accountancy Program

Faculty:

See College of Business and Technology

M.Acc. Program

The master of accountancy degree (M.Acc.) is designed for individuals who desire advanced study of accountancy and seek professional careers in public accounting, industry, and government. The M.Acc. program is fully accredited by AACSB International - The Association to Advance Collegiate Schools of Business.

The M.Acc., together with the B.B.A. degree, meet the educational requirements for Certified Public Accountants in Tennessee and all other states. Furthermore, the M.Acc. is a major step toward obtaining the credentials necessary for a teaching career in accountancy. The M.Acc. program covers financial and managerial accounting, auditing, taxation, and consulting services, as well as providing exposure to topics representative of the larger business environment.

Admission Requirements

A student applying to the M.Acc. program must be eligible for admission to the university as a graduate student and must meet the admission criteria for the program. The student must submit transcripts of all academic work previously completed and scores on the Graduate Management Admissions Test (GMAT). Admission criteria include the applicant's undergraduate grade point average and satisfactory scores on the GMAT. The applicant is presumed to have computer literacy and an understanding of mathematics. Questions relating to admission requirements should be addressed to the Associate Dean for Graduate Studies in Business and Technology.

Students admitted to other graduate programs in the university may enroll in selected graduate accountancy courses if appropriate course prerequisites have been completed. Non-degree students, visiting students, and applicants awaiting admission to the M.Acc. program may not register for graduate accountancy or business courses without prior approval of the Associate Dean for Graduate Studies in Business and Technology.

Course Requirements

M.Acc. Foundation Courses*

Accountancy Foundation Courses:

ACCT	5000	Essentials of Accounting	3 credits
ACCT	3010	Financial Accounting I	3 credits
ACCT	3020	Financial Accounting II	3 credits
ACCT	3110	Management Accounting	3 credits
ACCT	3410	Federal Income Taxes	3 credits
ACCT	4010	Advanced Accounting	3 credits
ACCT	4310	Accounting Information Systems	3 credits
ACCT	4610	Auditing Theory & Practice	3 credits
ACCT	4710	Nonprofit Entity Accounting	3 credits

Business Foundation Courses:

ECON 5000	Essentials of Economics	3 credits
ECON 5010	Essentials of Statistics	3 credits
FNCE 5000	Essentials of Finance	3 credits
MKTG 5010	Essentials of Marketing	3 credits
MGMT 5010	Essentials of Management	3 credits
MGMT 5020	Legal & Social Environment.....	3 credits
MGMT 5030	Quant. Analysis for Operations Management	3 credits
Maximum Semester credits		48 credits

M.Acc. Core Courses:

Accountancy Core Courses:

ACCT 5010	Seminar in Financial Accounting I.....	3 credits
ACCT 5110	Seminar in Managerial Accounting	3 credits
ACCT 5310	Seminar in Management Advisory Services	3 credits
ACCT 5410	Seminar in Taxation.....	3 credits
ACCT 5610	Seminar in Auditing	3 credits

Guided Electives**

Nine credits of approved coursework from the following:

BADM 5100	Strategic Management Process.....	3 credits
BADM 5140	Research Methods & Statistics	3 credits
BADM 5300	Economic & Financial Decision Making	3 credits
BADM 5320	Operations Strategy	3 credits
BADM 5380	National & Global Environment	3 credits

Free Electives and Capstone:

Free Electives**	6 credits
ACCT 5890 Professional Accounting Experience***	3 credits

Total semester credits **33 credits**

* For those students with recent formal academic preparation in accountancy or business administration, one or more foundation courses may be waived by the Director of Graduate Studies in Business.

** All electives must be at the graduate level and must be approved by the Associate Dean for Graduate Studies in Business and Technology prior to registration.

The nine credits of guided electives and six credits free electives will be selected to meet students' special interests and needs. Students who have not completed more than six credits of undergraduate statistics will be required to take BADM 5140. Essentials courses may not be taken for elective graduate credit.

*** This course fulfills the Culminating Experience requirement in the M.Acc. program.

The length of the M.Acc. program will depend upon a student's prior academic work and the number of courses to be taken per semester. The well-prepared full-time student can complete the program in three semesters. Part-time students can complete the program through evening classes at the ETSU main campus. Students can take selected courses at ETSU at Kingsport, ETSU at Bristol, or, via the instructional television system, at sites throughout Northeast Tennessee.

Master of Public Administration

Linda Garceau, Dean

Martha M. Pointer, Associate Dean for Graduate Studies in

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Paul C. Trogen, Director, Public Administration Program

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Faculty:

See College of Business and Technology faculty listing. Faculty in other colleges also teach M.P.A.-related courses.

M.P.A. Program

The master of public administration (M.P.A.) is a nonbusiness degree that offers an outstanding education for men and women seeking an exciting career in the public or nonprofit sector. Students may enter the program from any undergraduate major. The M.P.A. is a highly marketable degree for entry into the fields of city management, urban planning, industrial recruitment, community development, nonprofit administration, public budgeting, and financial management. The demand for trained public and non-profit managers has steadily increased, both in this region and beyond.

The M.P.A. program builds on a long tradition of higher education in city management with a unique degree offering. Students who complete requirements for the city management concentration will receive the Master of City Management (M.C.M.) degree. This allows students who wish to pursue careers in city management to have a unique degree which is widely recognized throughout the region. Students choosing other concentrations will be awarded the M.P.A. degree. Synergies with the Master of Accountancy (M.Acc.) and Master of Business Administration (M.B.A.) programs in the College of Business and Technology provide a wide range of instructional resources and the flexibility to take courses which span the boundaries between the public and private sectors.

Admission Requirements

A student applying to the M.P.A. program must meet both the requirements for admission to the university as a graduate student and the admission criteria for the program. The student must submit transcripts of all academic work previously completed, scores on the verbal and quantitative sections of the Graduate Record Examination (GRE), and three letters of recommendation. Admission criteria include satisfactory undergraduate grade point average, satisfactory GRE scores, and letters of recommendation. Questions about admission requirements should be directed to the M.P.A. director.

Students admitted to other graduate programs in the university may enroll in public administration courses (prefixes PMGT and URBS) if they have completed the prerequisites, if any.

Course Requirements

Core Courses:

PMGT 5100	Introduction to Public Administration	3 credits
PMGT 5120	Public Personnel Management	3 credits
PMGT 5140	Public Organization Theory.....	3 credits
PMGT 5160	Public Budgeting and Finance	3 credits
PMGT 5180	Public Policy Analysis	3 credits
URBS 5637	Local and Regional Planning	3 credits

Concentration (See below)..... 12 credits

Capstone*

PMGT 5800	Public Management Internship or	
PMGT 5820	Public Management Consultanship	3 credits
PMGT 5840	Public Management Report	3 credits

Total semester credits **36 credits**

* These courses fulfill the Culminating Experience requirement in the M.P.A. program.

Concentrations

1. City Management Concentration (Students selecting this concentration will receive the Master of City Management (M.C.M.) degree.) This concentration is designed for students who wish to pursue a degree in urban administration or local government administration.

Required Courses:

PMGT 5200	Administrative Law and Practice	3 credits
PMGT 5500	City Management Profession	3 credits
PMGT 5520	Urban Government	3 credits
Guided Elective (with permission of Director)		3 credits

Total concentration credits 12 credits

2. Planning and Development Concentration (Students selecting this concentration will receive the Master of Public Administration (M.P.A.) degree.) This concentration is intended for students with a professional interest in urban planning, economic development, and community development.

Required Courses:

URBS 5020	Urban Planning Theory	3 credits
URBS 5107	Urban Geography and Planning	3 credits
URBS 5347	Economic Development and Planning	3 credits
Guided Elective (with permission of Director)		3 credits

Total concentration credits 12 credits

3. Public Financial Management Concentration** (Students selecting this concentration will receive the Master of Public Administration (M.P.A.) degree.) This concentration is intended for students interest in public budgeting and public finance.

Required Courses:

ACCT 5717	Not-for-profit Entity Accounting	3 credits
PMGT 5280	Seminar in Public Risk Management	3 credits
PMGT 5750	Public Sector Financial Management	3 credits
Guided Elective (with permission of Director)		3 credits

Total semester credits 12 credits

**Pending approval of TBR/THEC.

Graduate Certificate in Business Administration Program

Linda Garceau, Dean
Martha M. Pointer, Associate Dean for Graduate Studies in Business and Technology
W.F. Mackara, Advisor
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Faculty:

See College of Business and Technology

Graduate Certificate in Business Administration Program

The Graduate Certificate in Business Administration (G.C.B.A.) is offered to individuals who hold undergraduate degrees in nonbusiness fields and who desire some formal education in business. They include employees of business organizations planning to move into management positions, entrepreneurs planning to set up small businesses, and teachers seeking certification or recertification to teach high school business courses. The program is also offered to individuals who earned undergraduate degrees in business several years ago and who seek to update their knowledge and skills.

Coursework completed in fulfillment of the Certificate program could subsequently be used to satisfy foundation requirements for the M.B.A. or M.Acc. program. Thus, a student who earned the G.C.B.A. would be closer to meeting the requirements for one of these two degree programs.

Admission Requirements

Applicants for admission to the G.C.B.A. program must hold an undergraduate degree from a regionally accredited institution. Applicants must submit transcripts of all undergraduate work completed. Admission criteria will include the student's grade point average (GPA); scores on nationally recognized aptitude tests, such as the Graduate Management Admission Test; work experience; and general suitability for graduate study. International students must be eligible for admission to the university as a graduate student, as determined by the School of Graduate Studies.

The applicant is presumed to have computer literacy and an understanding of mathematics through calculus. A student who does not have these competencies will be required to complete appropriate undergraduate courses before proceeding to take related Certificate coursework.

Curriculum

All students in the G.C.B.A. program are required to complete a minimum of 15 semester credits of graduate coursework. Students, guided by an advisor, will select 15 credits of courses from the following list:

G.C.B.A. Courses:

Five approved courses from the following:

ACCT 5000	Essentials of Accounting	3
ECON 5000	Essentials of Economics	3
ECON 5010	Essentials of Statistics	3
FNCE 5000	Essentials of Finance*	3
MGMT 5010	Essentials of Management	3
MGMT 5020	Legal & Social Environment	3
MGMT 5030	Quantitative Analysis for Operations Management**	3
MKTG 5010	Essentials of Marketing	3

One elective graduate business course approved by the student's advisor and the respective department chair 3

Total credits 15

* The prerequisite for FNCE 5000 is ACCT 5000 or equivalent

** Prerequisites for MGMT 5030 are ECON 5010 & MGMT 5010 or equivalents

A formal program of study will be drawn up for each student and authorized by the Director of Graduate Studies in Business and Technology.

Students who receive a Graduate Certificate in Business Administration are expected to have some basic knowledge in each of the five core areas of business: accounting, economics, finance, management, and marketing. A student will be permitted to take the elective course in the above list only if he or she can demonstrate previously-acquired knowledge in all five core areas.

Students who have, within a five-year period, completed coursework at the undergraduate or graduate level which is essentially equivalent to a course on the above list and who earned a grade of "A" or "B" in such coursework will be required to select another course in fulfillment of the 15-hour requirement.

Retention and Graduation

Students enrolled in the Certificate in Business Administration program will be subject to the probation policies applicable to all graduate programs at ETSU. In order to receive the Certificate, students will be required to earn a cumulative grade point average of 3.0 on coursework leading to the Certificate.

Graduate Certificate in Entrepreneurial Leadership

In today's business environment, marked by rapid technological change and increasing globalization, the skill sets traditionally associated with entrepreneurs have become a necessary part of the training for the managers and administrators of tomorrow. The entrepreneur's ability to adapt to rapidly changing environmental conditions, deal with risks, and aggressively exploit opportunities to either develop new businesses or effectively manage existing organizations must be enhanced to ensure a sustainable competitive advantage. The growing recognition of the importance of entrepreneurship education, its implications for the development for small and medium businesses and its relationship to developments in international business, has lead ETSU to develop a graduate certificate in Entrepreneurial Leadership. Prospective students for the certificate will be individuals who have a desire to start their own business or who have new business development responsibilities within existing businesses, industry or the professional community.

The criteria for admission to the Entrepreneurial Leadership Graduate Certificate Program include:

1. A baccalaureate degree, and
2. A minimum grade point average (GPA) of 2.5 on a 4.0 scale.

Upon admission to the program, an individualized program of study is designed based upon evaluation of previous coursework and professional experience. A student may transfer up to nine (9) credit hours of ETSU approved coursework into the certificate program. Coursework previously counted toward an earned degree or an earned certificate may not be transferred into the Entrepreneurial Leadership Graduate Certificate Program.

A student may simultaneously enroll in the Entrepreneurial Leadership Graduate Certificate Program and a specified degree program if he/she is duly admitted to both programs. Up to 18 credit hours of coursework in the certificate program may be approved for transfer into the Master of Science in Technology degree program and up to nine credits can be transferred into the M.B.A. program.

The proposed program requires completion of 18 semester hours of coursework.

Required Classes:

ENTC 5650/MGMT	5617	Small Business Management	3
ENTC/BADM	5370	Entrepreneurial Finance	3
ENTC/MGMT	5640	Innovative Entrepreneurship	3
BADM	5670	Strategic Management of Technology and Innovation	3
BADM or BADM/ENTC	5905	(ENTC equivalent) ... Graduate Internship	
	5800	Strategic Experience	3
Select One of the Following Electives:			
ENTC/MGMT	5050	Leading Continuous Improvement	3
or			
ENTC/MGMT	5070	Leading Empowered Problem Solving Teams	3
or			
ENTC/MGMT	5060	Scheduling for Project and Quality Management	3
or			
ENTC/MGMT	5630	Project Management	3
Total Credits Required			18

Health Care Management Graduate Certificate

Colleges of Business and Technology, Nursing, and Public and Allied Health

Wilsie S. Bishop, Program Coordinator

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Cynthia Taylor, Administrative Coordinator

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College of Business and Technology

Linda Garceau, Dean

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College of Nursing

Joellen B. Edwards, Dean

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College of Public and Allied Health

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The Health Care Management Graduate Certificate Program is an interdisciplinary 18-credit-hour program of study designed to provide the learner with leadership and strategic management tools specifically for the health care environment. The focus of the program is to assist students to envision a broadened career perspective on the changing scope of health care delivery and management. Faculty from the Colleges of Business and Technology, Nursing, and Public and Allied Health design and teach the courses within the program. For program details please see Health Care Management Graduate Certificate.

Chemistry

Master of Science in Chemistry

**Department of Chemistry
in the College of Arts and Sciences**

Hamid S. Kasmai, Graduate Coordinator

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Jeff G. Wardeska, Department Chair

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Faculty:

Tammy A. Davidson; Chu-Ngi Ho; Thomas T.-S. Huang;
Mian Jiang; Ismail O. Kady; Hamid S. Kasmai; Scott J. Kirkby;
Jeff G. Wardeska.

The Department of Chemistry offers a master of science degree with concentrations in the four traditional major areas of chemistry: analytical, inorganic, organic and physical. The program is designed, through advanced courses and individual research, to prepare the student for an occupation as a chemist or for continued study in a rigorous doctoral program.

Program Admission Requirements

To be eligible for admission to the program leading to an M.S. degree, a student must have:

1. A bachelor's degree from an accredited college or university with an adequate undergraduate background for the advanced work in the department.
2. This background must include a course in Physical Chemistry with laboratory requiring calculus as a prerequisite.
3. At least two recommendation letters from individuals who can comment on the academic as well as personal qualifications of the applicant.

Incoming students lacking certain prerequisites may, with departmental permission, make up these deficiencies. However, graduate credit will not be received for this coursework. Upon entering, some

students may be asked to take departmental placement exams, the purpose of which is to determine the level of the incoming student's preparedness for the graduate program. These exams, if administered will be used to better advise students as to their specific course of study.

Minimum Degree Requirements – The chemistry master's program offers students a broad, yet intensive, study of the four traditional major areas of chemistry: analytical, inorganic, organic, and physical.

A graduate major must take at least one of the core courses listed in each of the areas. Additionally, each student must choose an area of study in conference with an advisor or research director. In this area, two core courses must be taken. Additional chemistry coursework may be chosen in any area.

A minimum of 30 semester credits is required for the M.S. degree in chemistry. Only a total of six credits can be included from CHEM 5950 (Research in Chemistry), CHEM 5960 (Thesis) and CHEM 5010 (Seminar) in the required semester credits. Seminar is required and must be related to the student's research. With the approval of the student's advisor, up to 10 hours of credit may be in related fields.

All graduate majors are encouraged to conduct original research and to complete a thesis in their area of study, under the direction of a graduate faculty member. The student's research director should be chosen as soon as possible after admission to candidacy. Chemistry 5450 is designed to help new students to complete this process within the first semester of their studies. See "Admission to Candidacy" elsewhere in this catalog. All students are expected to attend departmental seminars.

The non-thesis option is not recommended for graduate students majoring in chemistry. With proper justification, the department chair may approve a non-thesis option which will require 33 credits of coursework, which may include a seminar topic of current interest. The topic is subject to the advisor's approval.

To assure that graduate students have adequately assimilated their knowledge at the master's level, written comprehensive examinations are given in each of the four basic areas of chemistry. The examinations are taken after completion of the appropriate core courses. All majors must pass the comprehensive exam in their selected area of study. In addition, majors must pass comprehensive exams in all the other areas, except that these additional exams may be waived by achieving a grade of "B" or better in a core course within that given area. In the event that a student does not pass the comprehensive exam on the first attempt, the exam may be retaken as early as the next scheduled time with the approval of the student's advisory committee. However, remedial coursework for the student may be required by the advisory committee before approval is given. Students are limited to two attempts of each comprehensive exam. Failure to pass an exam after two attempts will result in the student being ineligible to continue in the program.

After successfully completing all other requirements for the master's program, a final oral examination is administered to the student by the student's advisory committee. The oral exam is the defense of the candidate's thesis and is open to all interested faculty and students. Questions from the committee, while centering around the candidate's thesis work, are not limited to the research involved, but may cover other related topics of chemistry that a student would be expected to encounter in a master's program.

Concentration Requirements

The department offers core courses in each of the major areas of chemistry as listed below:

Analytical:	5210, 5220	3-6 credits
Inorganic:	5110, 5120	3-6 credits
Organic:	5510, 5541	3-6 credits
Physical:	5710, 5741, 5743	3-6 credits
Total	.....	15 credits

A student is required to take two core courses (6 sem. hrs.) in the chosen area of concentration and at least one core course in each of the remaining three (3 sem. hrs. each) for a total of 15 semester credits.

Clinical Nutrition

Master of Science in Clinical Nutrition

Department of Family and Consumer Sciences in the College of Business and Technology

Elizabeth Lowe, Graduate Coordinator and Program Director, Dietetic Internship Program

105 Hutcheson Hall
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Dr. Amelia Brown, Interim Department Chair

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Faculty:

See College of Business and Technology

The Department of Family and Consumer Sciences offers a two-year program in clinical nutrition leading to a master of science degree. The 33-36 credit curriculum provides a study of medical nutrition therapy, management, nutrition in community, and nutrition research. The dietetic internship program, which includes more than 1000 hours of supervised practice, also incorporates graduate level coursework as a mandatory component of the 10-month program. The dietetic internship program is currently granted full accreditation status by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association (ADA), 120 South Riverside Plaza, Chicago, IL 60606-6995, 312/899-5400. Students successfully completing the internship program will be eligible to take the Registration Examination for Dietitians. Upon completion of the program and successful completion of the registration exam, students may become registered dietitians (RD) and seek positions as clinical, community, research, consultant, educator, and management dietitians.

Program Admission Requirements

1. Admission to the School of Graduate Studies
2. A bachelor's degree from a CADE-accredited undergraduate didactic program in dietetics (DPD). Students applying to the dietetic internship program must also have received a verification statement or an intent to graduate from the DPD program director. Students from related disciplines will be required to complete the undergraduate prerequisites mandated by ADA, with a grade point average (GPA) of 3.0 on a 4.0 scale.
3. A GPA of 3.0 on a 4.0 scale in the applicant's undergraduate major and/or minor discipline.
4. Satisfactory references from three persons familiar with the applicant's academic and work experience.

Applications are accepted for the M.S. in Clinical Nutrition at any time during the year. Guidelines for applying are found in the Graduate Catalog and on the ETSU web site at www.ETSU.edu. Dietetic

Internship applications are accepted once per year in mid-February. The American Dietetic Association and the Commission on Accreditation for Dietetics Education set this deadline in accordance with the national computer matching process. Applicants will be notified of admission status in April for the Dietetic Internship Program. Students who are not applying for the internship program may be admitted and begin graduate coursework at the beginning of any semester.

Internship or Practicum

The dietetic internship requires an additional 18 credits in supervised practice/practicum settings. Students complete these under the guidance of registered dietitians at 16 different clinical, community and food service management sites. The internship didactic coursework begins in mid-July and ends the following May and the practicum rotations are in fall and spring semesters. Students in the internship will be responsible for costs related to clinical rotations including but not limited to: 1) liability insurance; 2) transportation; 3) professional membership fees and 4) required medical screenings. This program is offered with the support of James H. Quillen College of Medicine. For more information about the program, please contact the Program Director at 423/439-7532 or 423/439-7537.

Minimum Degree Requirements

The M.S. in Clinical Nutrition consists of 33-36 credits and offers thesis and non-thesis options. The culminating project for each option requires a research project and oral defense or presentation of the thesis/project.

Nutrition Requirements 15 Credit Hours

FACS 5410	Seminar in Nutrition	3 credits
FACS 5420	Maternal-Child Nutrition	3 credits
FACS 5430	Complex Adult Nutrition Care	3 credits
FACS 5450	Advanced Nutrition Therapy	3 credits
FACS 5487	Nutrition & Disease Prevention	3 credits
or		
PUBH 5400	Epidemiology	3 credits

Core Requirements 12-15 Credit Hours

Students will choose one of the following research courses:

EDFN 5950	Methods of Research	3 credits
or		
PMNU 5001	Nursing Research and Design	3 credits
or		
SOAA 5210	Sociological Research	3 credits

Students will choose one of the following science courses:

FACS 5447	Advanced Nutrition	3 credits
or		
BIOL 5167	Biochemistry of Metabolism	3 credits
or		
PEXS 5467	Nutrition and Exercise	3 credits

Students will choose one of the following statistics courses:

PUBH 5310	Biostatistics	3 credits
or		
SOAA 5444	Applied Data Analysis	3 credits
or		
ECON 5010	Essentials of Statistics	3 credits

Students will choose one of the following options for culminating experience:

Thesis Option:	FACS 5960 Thesis	6 credits
Non-thesis Option:	FACS 5460 Capstone Research Project	3 credits

Guided Electives

Thesis Option	3 credits
Non-thesis Option	9 credits

Students will choose from list or as approved by graduate coordinator:

FACS	5727	Methods for Vocational Family and Consumer Sciences Education	3 credits
FCNU	5507	Social Concerns and Women's Health	3 credits
FCNU	5807	Global Health Issues	3 credits
IDGE	5000	Introduction to Normal Aging	3 credits
PEXS	5655	Sports Nutrition and Ergogenic Aids	3 credits
PEXS	5650	Advanced Concepts in Wellness Promotion ..	3 credits
ENVH	5607	Food Sanitation Principles	3 credits
PMNU	5008	Alternative Health Practices	3 credits
PMNU	5110	Interdiscip. Approach to Bioethical Issues	3 credits
PUBH	5505	Managing Health Care	3 credits
PUBH	5110	Assessment of Individual and Community	3 credits
PUBH	5401	Rural Health Issues	3 credits
PUBH	5130	Planning and Implementation of Community Health Programs	3 credits
PUBH	5377	Health Communication	3 credits
PUBH	5525	Health Services Delivery and Organization ...	3 credits
PUBH	5007	Principles and Practices of Patient Education	3 credits
PUBH	5607	Gerontology and Health	3 credits
PSYC	5557	Introduction to Behavioral Medicine	3 credits

TOTAL - Thesis option 33 Credit Hours
Non-Thesis Option 36 Credit Hours

*Requirements for Dietetic Internship	18 credits
*FACS 5421-5422-5423 Lifespan Nutrition Practicum	6 credits
*FACS 5431-5432-5433 Medical Nutrition Therapy Practicum	6 credits
*FACS 5451-5452-5453 Nutrition & Food Systems Management Practicum	6 credits

Communication

Master of Arts in Professional Communication

**Department of Communication
in the College of Arts and Sciences**

Jack Mooney, Graduate Coordinator

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Charles Roberts, Department Chair

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Faculty:

Karen Brewster; Dan Brown; Kelly Dorgan; Bobby Funk;
 Delbert Hall; Jerry Hilliard; John King; Amber Kinser;
 William Kirkwood; Jack Mooney; Charles Roberts; Melissa Shafer.

In addition to its ACEJMC undergraduate accredited programs in mass communications and its baccalaureate programs in speech and theatre, the department offers a master of arts degree in Professional Communication.

The vision of our Journalism/Mass Communications unit is to provide opportunities for increasing knowledge of and skills in communication for all individuals with the potential for growth within the state and region. Specifically, we seek to increase public understanding of the value of freedom of communication in a democratic society. We endeavor to support and strengthen regional secondary and community college communication programs and to support and strengthen the discipline by doing research to increase our knowledge and understanding of communication.

To those ends, we actively recruit students who have the potential to become competent professionals in the various fields of mass communications represented within the department and educate these same students by offering academic programs, related co-curricular activities, and supporting services that will allow them to persist in their studies until they graduate. Our mission does not end with the graduation of our majors, for we also seek to maintain our relationships with our alumni so that we can serve them by providing leadership and opportunities for further development as professionals and citizens.

Graduate Admission Criteria

Each applicant is evaluated on the basis of the following criteria:

1. At least a 3.0 overall undergraduate grade point average
2. Graduate Record Examination test scores predictive of success in the program
3. Three letters that recommend admission to graduate study

Applicants who are weak in one area may still be admitted if they have high credentials in other areas. Those who have not completed an undergraduate major or minor in communications may be required to undertake preparatory coursework. Such coursework will be specified by the graduate advisor, dependent upon the applicant's background and designated emphasis area. Those applicants not meeting the admissions requirements as listed above may be conditionally admitted for 9 hours of graduate study at the discretion of the graduate committee.

During the period before candidacy, graduate students are advised by the departmental graduate coordinator. In consultation with the graduate advisor, the student devises an individualized Professional Communication program of study consisting of a core of common communication courses that all students are required to take, an emphasis in one of the six disciplines represented within the department, and a series of cognate courses from the department and from other units within the university.

Candidacy

A student must apply for admission to candidacy after completion of the core semester hours in professional communications. A program grade point average of 3.0 or higher and the removal of all conditions imposed at the time of admission to the School of Graduate Studies is required. Students admitted to candidacy will declare two areas of emphases with one area being within the Department of Communication (6-9 hours) and one in a cognate area (9 hours). The student also must indicate pursuit of the thesis or non-thesis option at that time, with approval by graduate faculty of the department. At least 75 percent of the total course hours must be taken within the Department of Communication.

Degree Requirements

A minimum of 39 hours of coursework is required for both the thesis and non-thesis options. No more than 30 percent of all courses taken in the program may come from 5xx7 series.

Summary of Course Requirements for the M.A. in Professional Communication

Communication Core	18 credits
Emphasis*	6-9 credits
Cognate .....	.9 credits
Thesis*	3-6 credits
or	
Approved Communication Elective	3 credits
Total: Degree credits	39 credits

*Students opting for a 3-credit hours thesis must choose 9 credits in the communication emphasis, while those choosing a 6 credit hour thesis must select 6 credits for the communication emphasis.

Communication Core

SPCH 5950 Comm. Research Methods	3 credits
SPCH 5330 Applied Comm. Theory	3 credits
MCOM 5037 Communications Law	3 credits
or	
MCOM 5030 Media and First Amendment	3 credits
MCOM 5040 Seminar in Communications	3 credits
5000-level Dept. of Comm. Topics Course	3 credits
5000-level Dept. of Comm. Elective	3 credits

Total: Communication Core 18 credits

Communication Emphasis

Courses in a single area within the Department of Communication (Speech Communication, Public Relations, Advertising, Journalism, Broadcasting, or Theatre)

Total: Communication Emphasis 6-9 credits

Cognate Areas of Emphasis

Nine hours of related courses must be taken in one department with approval of the respective department chair. These courses are selected and structured by the advisor and student based upon the student's experiences, interests, and abilities. Some participating departments/concentrations are: Art and Design/Design of Publications; Computer Science/Communication Technology; Curriculum and Instruction/Media Services; English/Professional Writing and Editing; Foreign Languages; History; Public Health; Psychology/Organizational Communication; Technology/ Professional Writing and Editing; Communication Technology. Others will be considered on a case by case basis.

Total: Cognate Area of Emphasis 9 credits

Communication Thesis or Approved Communication Elective Courses in a single area within the Department of Communication

Total: Thesis/Approved Elective 3-6 credits

Comprehensive Examinations

Students in the thesis option defend the thesis orally before a Department of Communication faculty committee. Students in the non-thesis option take a written comprehensive examination, after the completion of 36 hours, which is examined by the faculty of the Communication Department. Students failing either the oral or the written examination will be permitted to reschedule the examination no sooner than one semester later.

Communicative Disorders

Master of Science in Speech Pathology
Doctor of Audiology

Department of Communicative Disorders in
the College of Public and Allied Health

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Faculty:

Teresa Boggs; Jennifer Borsch; Patricia Chase; Methlee Ennis; Marc A. Fagelson; Kerry Proctor-Williams; Jody Rice; Nancy J. Scherer; Jacek Smurzynski; A. Lynn Williams.

The field of communicative disorders includes extensive opportunities for the audiologist and speech pathologist to assist persons with problems of hearing, speech, and/or language communication. Through appropriate diagnosis and evaluation and through techniques of (re)habilitation and appropriate counseling, communicatively disordered persons can be led to goals of successful personal, social, and vocational competence.

The Department of Communicative Disorders (CDIS) offers the Master of Science (M.S.) degree in speech pathology and the Doctor of Audiology (Au.D.). Both programs are accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). The coursework and clinical clock hour requirements are designed for the student to obtain the ASHA Certificate of Clinical Competence and licensure with the State of Tennessee Health Related Boards and/or Board of Education.

The CDIS programs offer a variety of clinical experiences in medical and educational settings. The programs emphasize clinical experiences in medical settings for both adult and pediatric populations. Clinical practicum and research experience is available in the Audiology and Speech Pathology Service of the Quillen Veterans Affairs Medical Center and through programs in the Department of Pediatrics, Quillen College of Medicine, early intervention programs, aphasia research laboratory, traumatic brain injury practicum, rehabilitation hospitals, nursing homes, Speech and Hearing Centers, ENT physician offices, and schools.

The mission of the Department of Communicative Disorders is to foster excellence in the academic and clinical education of speech-language pathologists and audiologists through commitments to teaching, research, and service; to promote a culture of scholarship and respect for individuals; and to provide a foundation of knowledge and skills that fosters competent, autonomous, clinical practice for the professional lifetime.

The academic goals of the department are to provide the knowledge, skills, and experience needed to:

- identify and understand basic human communication processes, normal and abnormal development across the life span, and culturally diverse populations.
- evaluate and treat speech, language, and hearing disorders as delineated in the professions' scopes of practice.
- integrate information and think critically.
- participate in the generation of research related to communication and/or communication disorders.
- develop skills to be a critical consumer of research related to communication and/or communication disorders.
- respect individuals and work harmoniously with others.
- exhibit professional and ethical deportment.
- communicate effectively with others.
- engage in continuing professional education throughout the professional lifetime.
- participate in professional and community activities.

The clinical goals of the department are to provide the knowledge, skills, and experience needed to:

- evaluate and treat speech, language, and hearing disorders as delineated in the professions' scopes of practices.
- incorporate the scientific method in the assessment and treatment of individuals with communication disorders.
- develop objective data-based measures to continually monitor and evaluate the efficacy of treatment with clients.
- adapt professional practice to diverse cultural populations and age groups.
- engage in competent, autonomous, clinical practice for the professional lifetime.
- uphold the spirit, purpose, and principles of the American Speech-Language-Hearing Association's Code of Ethics.
- apply problem-solving skills to the clinical situation.
- maintain flexibility when working in a variety of settings, organizational structures, working relationships, and job expectations.
- engage in the dissemination of professional information through effective written and oral communication to clients, families, other professionals, and significant others.

All students accepted for admission into the Department of Communicative Disorders must meet the following requirements prior to enrollment in clinical practicum:

1. A physical examination verifying that the student is in good health and free from communicable disease;
2. A tuberculin skin test or X-ray indicating no risk of immunizability;
3. Current Cardiopulmonary Resuscitation (CPR) or Basic Cardiac Life Support (BCLS) certification;
4. Professional liability insurance coverage; and
5. The ability to perform, either unaided or with reasonable accommodation, the following essential functions for clinical practicum in communicative disorders:
 - a. Critical thinking skills sufficient for clinical judgment;
 - b. Interpersonal skills sufficient for effective interaction with individuals and families from a variety of cultural backgrounds;
 - c. Communication skills sufficient for effective written and spoken interaction with others;
 - d. Physical mobility sufficient to move from room to room and maneuver in small spaces;
 - e. Gross and fine motor abilities sufficient for manipulation of evaluation and treatment instruments and materials;
 - f. Visual acuity sufficient for client evaluation and treatment;
 - g. Hearing sensitivity and auditory discrimination sufficient for client evaluation and treatment.

Master of Science in Speech Pathology

Program Admission Requirements

The program in speech pathology is selective and admits students only for fall semesters. For full consideration, applicants to the master's program must have their applications completed by February 15. The applicant is advised to begin the application process no later than the first week of January. It takes approximately six weeks for an application file to be completed. The department admissions committee makes decisions based on a number of contributing factors, and a personal interview may be required. In addition to the requirements established by the graduate school, the department has established the following minimum criteria for admission consideration for study in Speech Pathology:

1. A 3.0 Grade Point Average (GPA) in the undergraduate major;
2. An overall GPA of 2.75 or a GPA of 3.00 in the last 2 years;
3. Prerequisite coursework* (Conditional admission may be considered for students with a bachelor's degree who have not completed the prerequisite coursework.)

In addition to submitting an application and an official transcript of all academic work previously completed, applicants must submit three letters of recommendation which evaluate the student's academic abilities, communication skills, and interpersonal capabilities. However, a graduate of ETSU is not required to submit these letters if he or she is requesting admission prior to or immediately upon finishing the Communicative Disorders coursework.

Prerequisite coursework needed for conditional and unconditional admission consideration to the Speech Pathology Program includes:

1. At least 6 semester credits in the biological/physical sciences.
2. At least 3 semester credits in mathematics.
3. At least 6 semester credits in the behavioral and/or social sciences that include study that pertains to understanding normal/abnormal human behavior, development across the life span, social interaction, and issues of culturally diverse populations.
4. At least 15 semester credits in basic human communication processes with at least 3 credits in each of the following areas of speech, language, and hearing: the anatomic and physiologic bases; the physical and psychophysical bases; and the linguistic and psycholinguistic aspects.
5. At least 25 clinical observation credits under the supervision of an ASHA-certified professional.

Admission consideration may be given for life/work experience for those individuals who have been out of school for a number of years and do not meet the minimum requirements. International students must meet equivalent admission standards and are expected to be proficient in the understanding and use of English.

Students with an undergraduate degree in fields other than communicative disorders must complete the prerequisite coursework with at least a 3.0 GPA. Individuals may not enroll for courses as graduate non-degree students without the department's and instructor's approval prior to registration. Only graduate degree students may enroll in clinical practicum.

Progression Standards

Students in the master's program in Speech Pathology must meet the requirements of the School of Graduate Studies to remain in good standing. An overall grade point average (GPA) of 3.0 (B) or better must be maintained.

Degree Requirements

Students must complete a minimum of 48 credit hours (39 credit hours of coursework, 9 credit hours of clinic practicum). Students must meet the academic and practicum requirements for the Certification of

Clinical Competence of the American Speech-Language-Hearing Association.

Coursework Requirements: Each degree candidate must complete 24 credits of required concentration courses and 15 credits of electives. The electives may be in either concentration area, chosen in consultation with an advisor. Elective choices allow the student to emphasize child or adult populations with communicative disabilities.

Thesis and Non-Thesis Options: A student enrolled may chose a thesis or non-thesis option which represents a culmination of the student's graduate work. Students choosing the thesis option must enroll in CDIS 5690, Thesis, as part of the elective requirement. Students choosing the non-thesis option must successfully complete a clinical case presentation which requires research and studies over at least two semesters with written literature review to substantiate the current clinical and theoretical bases of their case. The case preparation, representing the creative component of this option, involves the clinical application of the scientific method in the evaluation and treatment of a client.

Clinical Requirements: Each degree candidate must complete a minimum of 9 credits of clinical practicum. The student must be enrolled in clinical practicum during each semester enrolled and must have clinical experiences at three distinctly different clinical sites. A minimum of 400 clinical clock credits (at least 250 credits on the graduate level) must be earned as part of the graduation requirement. The student is advised, however, that the minimum clock-hour requirement is not a goal. Placement to external sites is contingent on clinical performance and supervisory approval.

The master's program in Speech Pathology requires successful demonstration of clinical as well as academic performance. The following policies pertain to the student's progression through the clinical coursework:

1. The student must earn a grade of "B" or better in all clinical coursework. If a student earns a grade lower than "B" in a clinical course, he or she will be placed on clinical probation the following semester.
2. If the student does not earn a grade of "B" or better in all clinical coursework during the probationary semester, appropriate college/department/program officials will determine if the student be dismissed from the program or continued on clinical probation.
3. No student will be allowed more than two clinical probationary semesters, whether consecutive or cumulative. Failure to earn a grade of "B" or better in all clinical coursework during the second probationary semester will result in dismissal from the program.
4. The student must successfully complete the following sequence of clinical competency levels:
 - a. Level I - two semesters;
 - b. Level II - two semesters;
 - c. Level III - one semester.
5. A student placed on clinical probation will not be advanced to a higher clinical competency level during the probationary semester.
6. A student placed on academic probation will not be advanced to a higher clinical competency level during the probationary semester.
7. Throughout the clinical practicum sequence, students must successfully demonstrate the ability to perform the previously defined essential functions unaided or with the assistance of a reasonable accommodation.
8. Students have the right to appeal.

Concentration: Speech Pathology

Courses	
CDIS 5010	Neurological Bases of CDIS 3 credits
CDIS 5015	Language Dis. in Children 3 credits
CDIS 5025	Clinical Phonology 3 credits
CDIS 5030	Fluency Disorders 1 credit
CDIS 5035	Motor Speech Disorders 3 credits
CDIS 5040	Adult Lang. Disorders 3 credits

CDIS 5045	Dysphagia.....	3 credits
CDIS 5070	Voice Disorders	3 credits
CDIS 5400	Research Meths. for CDIS.....	3 credits
Total Didactic Courses		25 credits

CDIS 5510	Audiology Clinic for SLP.....	1 credit
CDIS 5620	SLP Clinic: Child Eval/Treat.....	3 credits
CDIS 5640	SLP Clinic: Adult Eval/Treat.....	3 credits
CDIS 5670	SLP Clinic: Advanced (repeat).....	3 credits
CDIS 5690	Externship: SLP	6-9 credits
Total Clinical Practicum		9 credits

Electives in Speech Pathology		4 credits
CDIS 5200	SLP in the Schools	3 credits
CDIS 5215	Clinical Audiology for SLP.....	3 credits
CDIS 5210	Comm. Prob. of Aging	3 credits
CDIS 5240	Pediatric Organic Dis.	3 credits
CDIS 5260	Intervention Issues	3 credits
CDIS 5270	Augmentative Comm.	3 credits
CDIS 5275	Dysphagia Laboratory	1 credit
CDIS 5285	Voice Laboratory	1 credit
CDIS 5295	Counseling in Communicative Disorders.....	3 credits
CDIS 5290	Adv. Adult Neuro Cog-Com Dis.....	3 credits
CDIS 5960	Thesis.....	3-6 credits
Total Minimum Required.....		48 credits

Doctor of Audiology

The primary goal of the Doctor of Audiology (Au.D.) degree program at ETSU is to provide clinical instruction and coursework that will prepare students to practice audiology with varied and diverse populations and individuals. To that end, the program will prepare students for roles as audiologists and clinic directors by providing advanced practical experiences in a variety of settings and by directing students to appropriate clinical training sites. The program is intended to prepare students as audiologists able to uphold the ASHA Code of Ethics and provide the standard of care in a variety of diagnostic and rehabilitative areas. Although the Au.D. is a clinical doctorate, it will provide students with the analytical and substantive knowledge they will need to assess and improve the effectiveness of practice, and the utilization of research. Two tracks are available for admission into and matriculation through the Au.D. program. Students who apply to the program while holding the bachelor's degree take the Traditional Entry track. Students who apply to the program while holding a master's degree in Audiology may take the Advanced Standing track.

Program Admission Requirements

Applicants seeking admission to the Au.D. degree program must fulfill all the requirements for admission to both the School of Graduate Studies and the Department of Communicative Disorders. The School of Graduate Studies requires that all students submit the following materials: a completed application form including payment of a nonrefundable application fee; one official transcripts of all previous undergraduate and graduate work; and a written essay.

Traditional Entry Track. In addition to requirements of the School of Graduate Studies, the Communicative Disorders Department requirements for admission to the Traditional Entry Track include:

1. Cumulative GPA of 3.25 (on a 4.0 scale) for the last two years of undergraduate study;
2. Submission of quantitative, qualitative, and analytical writing GRE scores;
3. At least eight semester hours in the lab sciences (chemistry, biology, or physics);

4. At least six semester hours in college-level mathematics of which at least 3 semester hours must be in the study of statistics;
5. At least 6 semester hours in the behavioral and/or social sciences such as normal, abnormal, developmental, and/or experimental psychology; sociology; or anthropology;
6. Completion of an interview;
7. Three letters of recommendation;

Advanced Standing Track. In addition to requirements of the School of Graduate Studies, the Communicative Disorders Department requirements for admission to the Traditional Entry Track include:

1. Cumulative GPA of 3.25 (on a 4.0 scale) in graduate-level audiology courses. Students will be required to repeat a course in any audiology foundation area in which they received a C as a graduate or undergraduate;
2. Completion of an interview;
3. Three letters of recommendation from peers and/or employers that address the clinical activities performed by the applicant;
4. Successful completion of a master's degree in Communication Sciences and Disorders in a program accredited by ASHA and CAA. Applicants must provide evidence of audiology-related employment and continuing education since matriculation, including statements pertaining to scope of practice, areas of expertise, and perceived areas of weakness;
5. Applicants must meet the certification standards as specified by ASHA and must be current holders of the CCC-A;
6. Applications to the Advanced Standing Track will be screened for the following criteria:
 - Quality of scholarship at the graduate level
 - Quality of coursework completed at the graduate level
 - Amount and variety of clinical experience since acquiring the M.S. degree
 - Professional activity other than clinical work (ie., publications, research assistantships, affiliations with state and national organizations, professional activities, presentations, and publications).

Applications cannot be evaluated until they are completed. The evaluation process considers elements from the admission requirements, relevant professional experience, and the applicant's ability, during the required interview, to discuss goals and expectations related to doctoral study of audiology. Interview times will be scheduled by the Communicative Disorders Department. The Department may admit a promising applicant who has not met all the admission requirements on a conditional basis. All admission requirements related to clinical practicum and progression standards are consistent with those of the Department.

Degree Requirements

Students in the Au.D. program must complete a minimum of 120 credit hours (75 credits of coursework, 45 credits of clinic practicum) and meet the academic and practicum requirements for the Certificate of Clinical Competence of the American Speech-Language-Hearing Association.

Coursework Requirements. Each Au.D. candidate must complete the required 75-credit-hour program of study. Any elective coursework completed by a student will be in addition to the 75-hour minimum. The fourth year of study consists of a clinic externship. Competency across the scope of didactic courses and clinical practice will be assessed throughout the program of study. Consistent with ASHA knowledge and skills acquisition requirements, students will display competence in all areas of audiologic practice prior to graduation.

Clinical Requirements. In addition to the Department's requirements for enrollment in and progression through clinical practicum, each degree candidate must complete a minimum of 45 credit hours of

clinic practicum including a fourth-year, full-time externship. The students must have clinical experience at three or more distinct clinic sites. Students will complete more than 2,000 hours of clinic activity including the fourth-year externship.

The Department's guidelines regarding progression through the clinic pertain to the Au.D. degree with the exception of #4, the sequence of clinical competency levels. Au.D. students and supervisors document clinical competence goals and track student progression as goals are exceeded, met, or not met. No levels of progression are completed; rather levels of competence are assessed across the clinical activities that comprise audiological practice.

Comprehensive and Qualifying Examinations. Written comprehensive examinations are required after the first year of coursework to facilitate formative assessment of the student. Results may indicate the need to review or modify a student's program of study. A set of written qualifying examinations is required after the second year of study in which the student should demonstrate the breadth of knowledge (provided by the foundation courses) required for continued doctoral study in audiology. Students who fail any portion of the qualifying examination will complete an oral examination addressing that material related to the failing grade. Students who fail any portion of the oral examination will retake the relevant coursework and modify their programs of study appropriately. At the end of the third year of coursework, students will complete an oral comprehensive examination designed to assess integration of course material and decision-making skills specifically related to clinical practice. The student cannot progress to the fourth-year externship without first passing the qualifying examination and the oral comprehensive examination sequence.

Time Limit. The time limit for completion of the Au.D. degree program by a student is six years from the date of enrollment in the earliest course applied toward the degree.

Courses

CDIS 6100	Instrumental and Acoustic Measurement	3 credits
CDIS 6110	Anatomy, Embryology, Physiology	3 credits
CDIS 6115	Audiologic Evaluation I	3 credits
CDIS 6140	Amplification Systems I	3 credits
CDIS 6141	Amplification Systems II	3 credits
CDIS 6142	Amplification Systems III	3 credits
CDIS 6145	Pathologies of Auditory System	3 credits
CDIS 6150	Psychoacoustics and Hearing Science	3 credits
CDIS 6160	Audiologic Evaluation II	3 credits
CDIS 6180	Pediatric Audiology	3 credits
CDIS 6195	Electrophysiology	3 credits
CDIS 6196	Electrophysiology II	3 credits
CDIS 6205	SLP for Auditory Students*	3 credits
CDIS 6300	Rehabilitative Audiology for Children	3 credits
CDIS 6310	Rehabilitative Audiology for Adults	3 credits
CDIS 6330	Auditory Measures of Speech Perception	3 credits
CDIS 6340	Audiology Clinic Practice Management	3 credits
CDIS 6360	Vestibular Assessment	3 credits
CDIS 6361	Adv. Vestibular Assessment and Rehabilitation ..	3 credits
CDIS 6370	Hearing Conservation	3 credits
CDIS 6400	Research Methods for CDIS	3 credits
CDIS 6410	Audiology Seminar	3 credits
PHYT 5304	Neuroscience	3 credits

(Repeat course for a total of 6 credits)

ALNU 5018	Clinical Pharmacology	3 credits
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Total Didactic Courses 75 credits

CDIS 6520	Audiology Clinic (repeatable)	3 credits
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CDIS 6590	Externship: Audiology (repeatable)	6-9 credits
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Total Clinical Practicum 45 credits

Students may also take electives in Speech Pathology with advisor approval.

Total Minimum Required 120 credits

Computer and Information Sciences

Master of Science in Computer Science

Department of Computer and Information Sciences in the College of Business and Technology

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Faculty:

See College of Business and Technology

In addition to its CSAB-accredited B.S. program in computer science, the department offers a master's (M.S.) program in computer and information sciences with two possible concentrations: applied computer science and information sciences.

Note: The course offerings and requirements of the department (as well as university regulations) are continually under examination and revision. Requirements, policies, and course offerings are subject to change at any time.

Graduate Admission Criteria

Each applicant is evaluated on the basis of the following factors.

1. Evidence of competence to begin graduate study. Such evidence should include either an undergraduate GPA of at least 3.0 (on a 4.0 scale), satisfactory GRE scores (a total of at least 1050 for verbal and quantitative, with at least 400 on each), or a professional record which demonstrates readiness for graduate study in computer science.
2. Coursework in computer science. The equivalent of a major in computer science is expected. Students lacking this background may be required to complete (with a B- or higher in each course) a sequence of undergraduate foundation courses in computer science and mathematics. Related professional experience, such as programming, systems analysis, and/or systems design may be substituted for some foundation courses.
3. For international students, a TOEFL score of at least 213 (computer based) or 550 (paper) is required as well as a verbal score of at least 400 on the GRE.
4. Three letters of recommendation should be submitted that evaluate the applicant's academic ability, professional maturity, and communication skills.

Minimum M.S. Degree Requirements

During the period before candidacy, graduate students are advised by the departmental graduate coordinator or associate graduate coordinator.

By the beginning of the second semester students should form their graduate advisory committee. The chair of this committee becomes the student's primary advisor. The faculty member who directs the non-thesis student's software development project serves as the student's primary advisor and chair of the committee. Where choices exist, students will decide, in consultation with their advisor, which courses will be taken to complete the master of science degree.

For students in a thesis option, the chair of the student's graduate advisory committee directs the research and the preparation of the thesis. After selecting a topic, the student, in consultation with the student's advisory committee chair, must develop a thesis proposal and plan which must be presented to the graduate faculty and approved by the student's committee. The approval form must bear the signatures of the student and the advisory committee members. The student must orally present and defend the thesis.

Advisory Committee – Students should have this committee formed at the beginning of the second semester in which coursework is taken. Students may not apply for candidacy for a graduate degree until the committee has been formed.

Admission to Candidacy – To be admitted to candidacy a student must meet a number of requirements of the Graduate School (See Degree Requirements).

Admission to Capstone Sequence – Admission to CSCI 5960 (Thesis in Computer and Information Sciences) or CSCI 5920 (Software Development Project II) requires that the student have at least a "B" average on the "pre-capstone courses" for the student's concentration (with no grade below "B-" in any pre-capstone course).

Pre-capstone courses for each concentration are as follows:

1. Applied Computer Science Concentration

CSCI 5200 - Software Systems Engineering

CSCI 5300 - Software Design and

one of the following:

CSCI 5150 - Topics in Distributed Systems

CSCI 5620 - Analysis of Algorithms

2. Information Technology Concentration

CSCI 5200 - Software Systems Engineering

CSCI 5300 - Software Design and

one of the following:

CSCI 5460 - Network and Information Security

CSCI 5710 - E-Commerce Implementation

Courses Open to Graduate Students – Graduate-level courses are listed at the 5XXX level. Courses at the 4XX7-5XX7 level are subject to special rules concerning enrollment and applicability as electives. Students who desire graduate credit for a course which is offered at both levels must register at the 5XX7 level. A course taken for under graduate level credit (4XX7 level) cannot be repeated for graduate credit (5XX7 level). Graduate students who are registered for a 5XX7 level course are required to do additional work over and above that required for students registered at the 4XX7 level. At most, 30 percent of all credit hours which are applicable to a master's program may be in courses at the 5XX7 level. Non-degree students who desire graduate credit may enroll for courses at the 5XXX level with consent of the instructor.

Independent Study – No more than one independent study course (1-3 hours) may be taken for credit toward a graduate degree without special written approval of the graduate program coordinator.

Special Topics – No more than two special topics courses (1-6 hours) may be taken for credit toward a graduate degree without special written approval of the graduate program coordinator.

Prerequisites for Graduate Study in Computer Science: Students must satisfy the program admission requirements (see Graduate Admissions Criteria above). The foundation coursework includes the following:

1. A background in mathematics including calculus, probability and statistics, and discrete structures.
2. Computer programming, including problem analysis, algorithm synthesis, and competence in data structures, with knowledge of assembly language concepts and a high level programming language
3. Undergraduate level coursework in database management systems, file processing, computer architecture, and operating systems.
4. Some graduate courses have additional or special prerequisites.

Common core requirements:

CSCI 5200 Software Systems Engineering	3 credits
CSCI 5300 Software Design	3 credits
CSCI 5230 Software Project Management	3 credits
CSCI 5520 Research Methods in Computer Science	1 credit
Total Core	10 credits

Capstone Requirements:

Choose ONE sequence from:

Non-thesis option:

CSCI 5910 Software Development Project I	3 credits
CSCI 5920 Software Development Project II	3 credits
CSCI 5930 Software Development Project III	3 credits

Thesis option:

CSCI 5550 Directed Research 1	3 credits
CSCI 5551 Directed Research 2	3 credits
CSCI 5960 Thesis	3 credits
Total Capstone	9 credits

A. Applied Computer Science Concentration – The applied computer science concentration is oriented toward the study of concepts, theory, and practical application of software development. This program teaches students to develop and use abstract models for analytic, descriptive, and predictive studies of real-world phenomena and systems. The concentration emphasizes good software development practices. Student will participate in software development projects that provide practice with requirements analysis, software design, modeling, project management, verification and validation, and quality assurance. In addition, computer science topics will be applied to projects, including database management, analysis of algorithms, and principles of operating systems.

Applied Computer Science Concentration Requirements

CSCI 5150 Topics in Distributed Systems	3 credits
CSCI 5220 Software Verification and Validation	3 credits
CSCI 5250 Database Design	3 credits
CSCI 5620 Analysis of Algorithms	3 credits
Total Concentration	12 credits

Guided Electives:

Choose six credits from:

CSCI 5100 Computer Architecture	3 credits
CSCI 5157 Interactive Graphics	3 credits
CSCI 5217 Ethical Issues in Computing	3 credits
CSCI 5360 Network and System Administration	3 credits
CSCI 5417 Data Communication and Network Security	3 credits
CSCI 5460 Network and Information Security	3 credits
CSCI 5610 Formal Languages and Computational Complexity	3 credits
CSCI 5710 E-Commerce Implementation	3 credits
CSCI 5720 Enterprise and E-Business Integration	3 credits
CSCI 5800 Principles of Computer Graphics & Image Processing	3 credits
CSCI 5957 Special Topics in Computer Science	3 credits

DIGM 5831 Interactive Multimedia	3 credits
DIGM 5837 Advanced Multimedia	3 credits
MATH 5340 Graph Theory and Its Applications	3 credits
Total Electives	6 credits
Total Program	37 credits

B. Information Technology Concentration – The information technology concentration builds on the basic concepts of software development and Web programming. Students in this concentration will develop e-commerce and business-to-business Web applications. The concentration emphasizes good software development practices. Students will participate in software development projects that provide practice with requirements analysis, software design, modeling, project management, verification and validation, and quality assurance. Other skills include network and system administration and information security.

Information Technology Concentration Requirements:

CSCI 5710 E-Commerce Implementation	3 credits
CSCI 5720 Enterprise and E-Business Integration	3 credits
CSCI 5360 Network and System Administration	3 credits
CSCI 5460 Network and Information Security	3 credits
Total Concentration	12 credits

Guided Electives

Choose from:

CSCI 5100 Computer Architecture	3 credits
CSCI 5150 Topics in Distributed Systems	3 credits
CSCI 5157 Ethical Issues in Computing	3 credits
CSCI 5220 Software Verification and Validation	3 credits
CSCI 5250 Database Design	3 credits
CSCI 5417 Data Communication and Network Security	3 credits
CSCI 5610 Formal Languages and Computational Complexity	3 credits
CSCI 5620 Analysis of Algorithms	3 credits
CSCI 5800 Principles of Computer Graphics & Image Processing	3 credits
CSCI 5957 Special Topics in Computer Science	3 credits
DIGM 5831 Interactive Multimedia	3 credits
DIGM 5837 Advanced Multimedia	3 credits
MATH 5340 Graph Theory and Its Applications	3 credits
Total Electives	6 credits
Total Program	37 credits

Counseling

Master of Arts in Counseling

**Department of Human Development and Learning
in the College of Education**

Dr. Clifton Mitchell, Graduate Coordinator

322 Warf-Pickel Hall
Box 70548
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e-mail: mitchelc@etsu.edu

**Dr. Patricia Robertson, Elementary and Secondary School
Counseling and Higher Education Coordinator**

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e-mail: robertpe@etsu.edu

**Dr. Brent Morrow, Marriage & Family
Therapy Coordinator**

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e-mail: morrowb@etsu.edu

Dr. Clifton Mitchell, Community Agency Coordinator

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e-mail: mitchelc@etsu.edu

Human Development and Learning**Dr. Patricia Robertson, Department Chair**

301 Warf-Pickel Hall
Box 70548
(423) 439-7693
e-mail: robertpe@etsu.edu

Faculty:

James Bitter; Graham Disque; Clifton Mitchell; Brent Morrow;
Patricia Robertson; Harold Whitmore.

The counseling program is designed for the advanced preparation of personnel to serve children, adolescents, and adults in various school, higher education, and community agency settings. The counseling program offers four concentrations: community agency counseling, higher education, marriage and family therapy, and school counseling. Emphasis is placed upon assisting students to develop a broad range of counseling skills that are applicable in a variety of professional settings. A minimum of 48 semester credits, is required to complete the master of arts degree in counseling. The School Counseling and Community Agency Counseling options are accredited by The Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Community Agency Counseling – The program for students seeking preparation for counseling in community agencies will be planned and individualized, and electives will be chosen from disciplines relevant to the area of professional interest of each student. For example, graduates who have completed the concentration in community agency counseling should develop professional skills for working in community mental health agencies, substance abuse centers, correctional facilities, employee assistance programs, hospice services or other human service settings.

Higher Education – The higher education concentration is designed to prepare counselors and administrative professionals for service to students in community and four-year colleges and universities. Graduates in this concentration may seek positions in the student affairs, college and university counseling centers, career placement centers, admissions and academic advisement, residential life, financial aid, disability services, and campus diversity and multicultural programs.

Marriage and Family Therapy – The marriage and family therapy concentration is designed to prepare students to treat individual, couple and family problems in such settings as human service agencies, mental health centers, psychiatric hospitals, religious agencies, and counseling agencies.

Elementary and Secondary School Counseling – The school counseling concentration is designed to prepare individuals to work in school settings and to be eligible for licensure as a Pre K-12 school counselor. The school counseling concentration has been approved by the state of Tennessee as a preparation program for Pre K-12 school counselors. To satisfy state requirements, candidates without teaching experience seeking to be licensed as school counselors for grades Pre K-12 must take EDFN 5410, Foundations of Education (EDFN 2300 is a

substitute) and SPED 5500, History, Issues and Trends in Educating Exceptional Learners (SPED 2300 is a substitute).

Recommended Electives – It is recommended that students, with written approval of their advisor or advisory committee, choose electives with a focus clearly related to their specific professional objectives. Coursework may be chosen from the discipline of counseling, special education, criminal justice, social work, sociology, psychology, early childhood education, health education, personnel, and management. Courses should be approved for elective credit before the courses are taken.

Retention and Dismissal – As required by ACA and AAMFT, students failing to demonstrate personal, professional, and/or ethical behaviors, as these behaviors relate to the ability to function as a counselor, upon review and substantiation (with due process), may be denied continuance in counseling programs. All counseling graduate students are evaluated twice a year. If intervention is indicated and completed, the student may petition the department for readmission.

Students are responsible for being familiar with and following all graduate school admission and retention requirements as stated in the front section of this catalog and in the counseling graduate student handbook.

Licensure Information – In order to be eligible for Licensed Professional Counselor (LPC) status in Tennessee, applicants must have 60 credit hours of coursework in counseling or a related field (i.e., psychology, social work, etc.). Tennessee's licensure coursework requirement is 12 credit hours beyond the 48 credit hours required for graduation in any of the three counseling concentrations. Thus, students ultimately seeking LPC licensure should note that additional courses will be required beyond those necessary to graduate with an M.A. in Counseling at ETSU. Many students delay graduation until 60 credit hours are accumulated in order to maintain tuition scholarships, graduate assistantships, or paid internships - and in order to be license eligible with regard to coursework upon graduation. Delayed graduation is not required, however, and many other students choose to complete their licensure courses after graduation while being fully employed. In addition, it is highly recommended that those seeking an LPC obtain the Mental Health Service Provider (MHSP) designation with the license. In order to obtain the MHSP designation, certain courses are required. See the Counseling Program Handbook or your designated advisor for details on obtaining MHSP status.

Program Admission Requirements

Each applicant for admission to the master of arts degree in counseling program must meet the following criteria:

Applicants to East Tennessee State University's graduate program in counseling must be a graduate of a regionally accredited college or university. In addition to submitting an application and an official transcript of all academic work previously completed, applicants must submit three letters of reference and their general aptitude scores from the Graduate Record Exam (GRE). After a review of the application materials, applicants whose documents indicate a potential for success will be invited for an interview with the counseling program faculty. Candidates for consideration are expected to have a minimum total of 2500 points based on the following formula: The sum of the GRE general aptitude scores (V + Q + A) plus 400 times the applicant's undergraduate grade point average (UGGPA). Stated mathematically the formula would be: (Verbal + Quantitative + Analytical) + (UGGPA x 400) > 2500. Please note, however, that the GRE Analytical exam has been replaced by the Analytical Writing section, which is scored on a 0-6 scale. The essay component is not scored using the same scale as the Verbal and Quantitative components. It is scored, instead, using a 0 - 6 scale. The Counseling Program will adjust the above formula accordingly and, as information is gathered on the predictability of the essay component, a new formula will be created.

Because of the importance of interpersonal characteristics in the field of counseling, the interview is a significant component of the admission process of the counseling program. After interviews, candidates will receive a letter regarding admission. Students are admitted into the counseling program once a year for either the summer or fall semesters. To be considered for summer or fall enrollment, the early admission deadline is March 1st and the regular admission deadline is April 15th. Interviews will be scheduled during the following months.

In some instances, additional factors that are outlined below may also be considered in the decision process. Applicants who do not meet the admission criteria based upon the GRE/GPA formula but who present other evidence of potential for success in graduate study may apply to the counseling committee for further review. After review of the relevant documentation, the faculty may then request an interview. If the results of the interview with the faculty are positive, the candidate may be admitted as an exception to the formula entry standards.

The counseling program does not condone or engage in discrimination based on age, color, culture, disability, ethnic group, race, religion, sexual orientation, marital status, or socioeconomic status.

Under the preceding procedures, factors given consideration in the admission decision include the following:

1. Faculty's assessment of interpersonal skills and aptitude for counseling.
2. Level of GRE performance
3. Undergraduate grade point average
4. Undergraduate institution
5. Undergraduate field of study
6. Performance in previous graduate level study
7. Related counseling work experience
 - a. past and current positions
 - b. years of experience
 - c. scope and variety of experiences
8. Other evidence of success in academic and professional endeavors
9. Motivation for graduate study

Applicants who are otherwise qualified for admission may not be admitted based on program enrollment and limited resources, or determination of suitability by the faculty.

Community Agency Curriculum

Core Requirements

EDFN 5950 Methods of Research	3 credits
HDAL 5100 Human Relations and Group Process	3 credits
HDAL 5110 Social & Cultural Foundations in Counseling	3 credits
HDAL 5230 Advanced Developmental Psychology	3 credits
HDAL 5430 Legal & Ethical Issues	3 credits
Total Core credits	15 credits

Specific Requirements For Community Agency Counseling Concentration:

HDAL 5150 Career Development	3 credits
HDAL 5250 Counseling in Community Agencies	3 credits
HDAL 5440 Treating Trauma & Abuse in the Family	3 credits
OR	
HDAL 5549 Substance Abuse: Counseling Individuals & Families	3 credits
HDAL 5550 Counseling I	3 credits
HDAL 5562 Counseling II	3 credits
HDAL 5570 Supervised Counseling Practicum	3 credits
HDAL 5817 Introduction to Psychological Testing	3 credits
HDAL 5880 Internship	6 credits
PSYC 5825 Psychopathology	3 credits
Total Concentration credits	30 credits

HDAL 5960 Thesis	3 credits
OR	
Guided Elective	3 credits
Total Required Credits for M.A. degree	48 credits

Higher Education Curriculum

Core Requirements:

EDFN 5950 Methods of Research	3 credits
HDAL 5100 Human Relations and Group Process	3 credits
HDAL 5110 Social & Cultural Foundations in Counseling	3 credits
HDAL 5230 Advanced Developmental Psychology	3 credits
HDAL 5430 Legal and Ethical Issues in Counseling	3 credits
Total Core credits	15 credits

Specific Requirements for Higher Education Concentration:

HDAL 5150 Career Development	3 credits
HDAL 5440 Treating Trauma & Abuse in the Family	3 credits
OR	
HDAL 5549 Substance Abuse: Counseling Individuals & Families	3 credits
HDAL 5550 Counseling I	3 credits
HDAL 5562 Counseling II	3 credits
HDAL 5570 Supervised Counseling Practicum	3 credits
HDAL 5721 Trends & Issues in Higher Education	3 credits
HDAL 5722 Student Development & the College Environment	3 credits
HDAL 5817 Introduction to Psychological Testing	3 credits
HDAL 5880 Internship	6 credits
Total Concentration credits	30 credits
HDAL 5960 Thesis	3 credits
OR	
Guided Elective	3 credits
Total Required Credits for M.A. degree	48 credits

Elementary And Secondary School Counseling Curriculum

Core Requirements

EDFN 5950 Methods of Research	3 credits
EDFN 5100 Human Relations & Group Process	3 credits
HDAL 5110 Social & Cultural Foundations in Counseling	3 credits
HDAL 5230 Advanced Developmental Psychology	3 credits
HDAL 5430 Legal & Ethical Issues	3 credits
Total Core credits	15 credits

Specific Requirements For Elementary and Secondary School Counseling Concentration:

HDAL 5010 Principles & Administration of Counseling and Consultation Services	3 credits
HDAL 5150 Career Development	3 credits
HDAL 5440 Treating Trauma & Abuse in the Family	3 credits
OR	
HDAL 5549 Substance Abuse: Counseling with Individuals and Families	3 credits
HDAL 5550 Counseling I	3 credits
HDAL 5561 Counseling Techniques with Children	3 credits
HDAL 5562 Counseling II	3 credits
HDAL 5570 Supervised Counseling Practicum	3 credits
HDAL 5817 Introduction to Psychological Testing	3 credits
HDAL 5880 Internship	6 credits
Total	30 credits

HDAL 5960 Thesis	3 credits
OR	
Guided Elective	3 credits
Total required credits for M.A. degree	48 credits

Marriage And Family Therapy Curriculum

Core Requirements:

EDFN 5950 Methods of Research	3 credits
HDAL 5100 Human Relations and Group Process	3 credits
HDAL 5110 Social & Cultural Foundations in Counseling	3 credits
HDAL 5230 Advanced Developmental Psychology	3 credits
HDAL 5430 Legal & Ethical Issues	3 credits
Total Core Credits	15 credits

Specific Requirements for Marriage & Family Therapy

HDAL 5420 Family Therapy I	3 credits
HDAL 5421 Family Therapy II	3 credits
HDAL 5422 Counseling with Couples	3 credits
HDAL 5423 Postmodern Approaches to Family Therapy ..	3 credits
HDAL 5440 Treating Trauma and Abuse in the Family	3 credits
HDAL 5549 Substance Abuse: Counseling Individuals and Families	3 credits
HDAL 5570 Supervised Counseling Practicum	3 credits
HDAL 5880 Internship	6 credits
Total	30 credits

HDAL 5960 Thesis	3 credits
OR	
Guided Elective	3 credits
Total Required Credits for M.A. degree	48 credits

Criminal Justice and Criminology

Master of Arts in Criminal Justice and Criminology

**Department of Criminal Justice and Criminology
in the College of Arts and Sciences**

<http://www.etsu.edu/crimjust>

Dr. Wayne Gillespie, Graduate Coordinator

201 Rogers-Stout Hall
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(423) 439-4324
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Dr. John T. Whitehead, Department Chair

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(423) 439-5346
e-mail: WhiteheJ@etsu.edu

Faculty:

Michael Braswell; Stephen Brown; Wayne Gillespie; Larry Miller;
Leonore Simon; John Whitehead; Marian Whitson.

The Department of Criminal Justice and Criminology offers the master of arts degree, which is designed to enhance student understanding of crime, societal reaction to crime, and efforts to control it. It prepares the student for advancement in criminal justice professions, teaching at the community college level, and study at the doctoral level.

Program Admission Requirements

Admission decisions are based on the applicant's combined verbal, quantitative and analytical scores on the GRE and the applicant's undergraduate grade point average. The applicant's grade point average during the last two years of undergraduate study will be taken into consideration.

Required Core:

CJCR 5000 Criminal Theory	3 credits
CJCR 5005 Ethics and Social Justice	3 credits
CJCR 5010 American System of Justice	3 credits
CJCR 5040 Law, Society, and Criminal Justice	3 credits
CJCR 5850 Research Design in Criminology	3 credits

Thesis Option:

CJCR 5960 Thesis	3 credits
Electives	12 credits

Non-Thesis Option:

Electives	18 credits
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Total credits required for the degree 33-36 credits

Non-Thesis Option students must successfully pass a comprehensive examination. The examinations will consist of written essays graded by the graduate faculty of the Department. Students who have completed 30 credit hours within the program of study are eligible to take the comprehensive examination. The student must apply to take the examination by the end of the third week of the fall or spring semester in which the examination is to be administered. Students failing any part of the comprehensive examination will be permitted to reschedule the examination no sooner than one semester later. No student will be allowed to re-take the examination more than one time.

Early Childhood

**Master of Arts and Master of Education
in Early Childhood Education**

**Master of Arts and Master of Education
in Early Childhood Teaching
in the College of Education**

Dr. Laurelle Phillips, Graduate Coordinator

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Department of Human Development and Learning

Dr. Patricia Robertson, Department Chair

303 Warf-Pickel Hall
Box 70548
(423) 439-7693
e-mail: robertpe@etsu.edu

Faculty:

Pam Evanshen; Rebecca Isbell; Amy Malkus; Laurelle Phillips.

The Department of Human Development and Learning offers the master of arts and the master of education degree in early childhood education and the master of education in early childhood teaching. These graduate programs provide specialized education preparation for those interested in young children's development from birth to nine years of age and their families. They focus on promoting the optimal developmental environment for young children, birth to nine years of age. The graduate program in Early Childhood Teaching leads to initial licensure in PreK-4 in Tennessee. The early childhood specialist, in the advanced program, is

trained for leadership roles in early childhood education, teaching in quality programs for young children, administering programs, working with families, community services, and instruction at the community college level. All programs are approved by the National Association for the Education of Young Children.

Admission Requirements

Each applicant to the graduate program in early childhood education must complete the following:

1. Complete all the requirements for admission to the School of Graduate Studies.
2. Present a minimum of a 3.0 undergraduate grade point average or complete a probationary period in which the student achieves a grade point average of 3.0 in the first 12 credits of graduate credit.
3. Have a combined score of 900 on two portions of the Graduate Record Exam. This should be taken prior to admission to the program or before the completion of the first semester of study.
4. Be reviewed by the Early Childhood Admission committee. Those who do not have an undergraduate degree in early childhood education or a related field of study may be required to take selected undergraduate courses that will strengthen the applicant's background in early childhood education.

The Early Childhood Core

The core courses are required of all candidates for the M.A. or M.Ed. degree in early childhood education and early childhood teaching. The courses are designed to provide a foundation of knowledge concerning the young child birth-nine years of age. The core includes the study of typically developing children (birth-nine), their unique learning abilities, parental influence, program design, assessment, and research methods.

Selected Specialized Courses

The selected specialized early childhood courses are chosen with the approval of the student's advisor and provide for the individualization of the student's program. These specialized courses can follow the student's individual needs and interest in a variety of areas including: working with infants and toddlers, working with parents, directing programs, designing effective curriculum for young children, teaching kindergarten and primary grades/licensure in PreK-4, and other areas that relate to young children.

M.Ed. IN EARLY CHILDHOOD TEACHING

(Initial licensure in PreK-4)

This graduate program is designed for students who have undergraduate majors in fields other than early childhood education. The concentrated master's degree in early childhood teaching includes 19 credits of professional core and 28 credits of early childhood courses that focus on language development, social development, creative arts, appropriate learning environment, program planning, and parent involvement. It also includes courses in special education, reading, and elementary mathematics. This combination of courses must be taken to meet state competencies in early childhood for PreK-4 licensure. In addition, students will be required to take a supervised practicum in PreK-K and 1-4. Students completing this comprehensive program and supervised practicum(s) will be highly trained early childhood teachers.

Graduate students seeking PreK-4 licensure must be admitted to the Teacher Education program. They must file a Declaration of Intent with the College's Office of Student Services, receive a passing score on the PPST or a composite score of 22 on the ACT or a composite score of 1020 on the SAT, be recommended by an Admissions Board, and complete all other requirements for admission to teacher education.

Professional Core Requirements

EDFN 5010	Interdisciplinary Seminar	1 credit
ECED 5330	History & Philosophy of Early Childhood Education	3 credits
ECED 5210	Advanced Child Development	3 credits
ECED 5344	Family & Community Relations	3 credits
ECED 5335	Assessing and Evaluating Young Children	3 credits
ECED 5520	Programs for Young Children	3 credits
EDFN 5950	Methods of Research	3 credits
Total	.....	19 credits

Additional Requirements for Licensure

(For candidates NOT previously certified PreK-4)

ECED 5332	Designing Early Childhood Environments	3 credits
ECED 5334	Social Development of Young Children	3 credits
ECED 5336	Advanced Creative Development	3 credits
ECED 5356	Language & Literacy Development of Young Children	3 credits
ECED 5347	Technology and Media in Early Childhood Education	3 credits
SPED 5500	History, Issues & Trends in Educating Exceptional Learners	3 credits
CUAI 5517	Math Methods for Early Childhood	3 credits
SCED 5527	Science Methods for Early Childhood Education	3 credits
CUAI 5537	Integrated Field Experience for Early Childhood Education	1 credit
CUAI 5547	Emergent Literacy: PreK-4	3 credits
Total	.....	28 credits
ECED 5345	Research in Early Childhood	3 credits
HDAL 5960	Thesis	3 credits
Total	.....	6 credits

Electives:

(Choose six credits from the following with prior approval of the student's graduate committee chairperson.)

ECED 5257	Mentoring in Early Childhood Education	3 credits
ECED 5331	Infancy	3 credits
ECED 5332	Designing Early Childhood Environments	3 credits
ECED 5333	Processes of Learning in Infants & Young Children	3 credits
ECED 5334	Social Development of Young Children	3 credits
ECED 5336	Advanced Creative Development	3 credits
ECED 5347	Technology and Media in Early Childhood Education	3 credits
ECED 5352	Theories of Play	3 credits
ECED 5356	Language & Literacy Development of Young Children	3 credits
ECED 5357	Management and Administration of Early Childhood Programs	3 credits
SPED 5500	History, Issues, & Trends in Educating Exceptional Learners	3 credits

Practicum

The practicum/student teaching experience will be designed to ensure that the graduate student has supervised experiences in both PreK-K and Grades 1-4.

ECED 5580	Student Teaching & Seminar in Early Childhood Education	6 credits
	(PreK-4)	
Total for Initial Licensure	.....	53 credits

M.Ed/M.A. IN EARLY CHILDHOOD EDUCATION

(Advanced Degree in Early Childhood)

The M.A. and M.Ed. in Early Childhood Education are designed for students who have undergraduate training in early childhood or certification in Early Childhood.

Degree Requirements

A minimum of 31 credits of coursework is required for the M.A. (thesis option), of which 19 credits must be in the early childhood core. The M.Ed. (non-thesis) option requires 37 credits, 19 of which must be in the early childhood core.

A minimum of three-fourths of all credits counted toward the degree must be earned in courses open to graduate students only.

The specialized courses are chosen with the approval of the student's advisor and provide for the individualization of the program of study.

MASTER OF ARTS IN EARLY CHILDHOOD EDUCATION (THESIS OPTION)

EDFN 5010	Interdisciplinary Seminar	1 credit
ECED 5210	Advanced Child Development	3 credits
ECED 5330	History & Philosophy of Early Childhood Education	3 credits
ECED 5335	Assessing & Evaluating Young Children	3 credits
ECED 5344	Family & Community Relationships	3 credits
ECED 5520	Programs for Young Children	3 credits
EDFN 5950	Methods of Research	3 credits
Total	.....	19 credits

Concentration:

ECED 5345	Research in Early Childhood	3 credits
HDAL 5960	Thesis	3 credits
Total	.....	6 credits

Electives:

(Choose six credits from the following with prior approval of the student's graduate committee chairperson.)

ECED 5257	Mentoring in Early Childhood Education	3 credits
ECED 5331	Infancy	3 credits
ECED 5332	Designing Early Childhood Environments	3 credits
ECED 5333	Processes of Learning in Infants & Young Children	3 credits
ECED 5334	Social Development of Young Children	3 credits
ECED 5336	Advanced Creative Development	3 credits
ECED 5347	Technology and Media in Early Childhood Education	3 credits
ECED 5352	Theories of Play	3 credits
ECED 5356	Language & Literacy Development of Young Children	3 credits
ECED 5357	Management and Administration of Early Childhood Programs	3 credits
SPED 5500	History, Issues, & Trends in Educating Exceptional Learners	3 credits
ECED 5570	Practicum in Early Childhood Education	3 credits
Total Elective Credits	.....	6 credits

**MASTER OF EDUCATION IN EARLY CHILDHOOD EDUCATION
(NON-THESIS OPTION)**

Core Courses:

EDFN 5010 Interdisciplinary Seminar	1 credit
ECED 5210 Advanced Child Development	3 credits
ECED 5330 History & Philosophy of Early Childhood Ed.	3 credits
ECED 5335 Assessing & Evaluating Young Children	3 credits
ECED 5344 Family & Community Relationships	3 credits
ECED 5520 Program for Young Children	3 credits
EDFN 5950 Methods of Research	3 credits
Total	19 credits

*Selected Specialized Courses

(Eighteen credits chosen from the following with prior approval of the student's advisory committee chair.)

ECED 5257 Mentoring in Early Childhood Education	3 credits
ECED 5331 Infancy	3 credits
ECED 5332 Designing Early Childhood Environments	3 credits
ECED 5333 Processes of Learning in Infants & Young Children	3 credits
ECED 5334 Social Development of Young Children	3 credits
ECED 5336 Advanced Creative Development	3 credits
ECED 5345 Research in Early Childhood Education	3 credits
ECED 5347 Technology and Media in Early Childhood Education	3 credits
ECED 5352 Theories of Play	3 credits
ECED 5356 Language and Literacy Development of Young Children	3 credits
ECED 5357 Management and Administration of Early Childhood Programs	3 credits
SPED 5500 History, Issues, & Trends in Educating Exceptional Learners	3 credits
ECED 5570 Practicum in Early Childhood Education	3 credits
Total	18 credits

**MASTER OF EDUCATION IN EARLY CHILDHOOD EDUCATION
COHORT PROGRAM**

Beginning each Summer Semester, a cohort of students interested in securing a master's degree in early childhood education will begin. This cohort is specifically designed for individuals who are already certified in early childhood, but who are interested in a master's degree that can be obtained during a 15-month time period. Students would be required to enroll in 12 credit hours during the Summer Session their program begins, six credit hours during the Fall Session, seven credit hours during the Spring Session, and 12 credit hours during their final Summer Session.

The core course requirements are the same as those required for the M.Ed. Advanced Degree in Early Childhood.

The elective courses includes the following:

ECED 5336 Advanced Creative Development In Young Children	3 credits
ECED 5332 Designing an Early Childhood Environment ...	3 credits
ECED 5334 Social Development of Young Children	3 credits
ECED 5356 Language & Literacy Development of Young Children	3 credits.

**CENTER FOR EARLY CHILDHOOD LEARNING
AND DEVELOPMENT**

The Center for Early Childhood Learning and Development is a designated Center of Excellence and includes two model programs: The

Infant/Toddler Program, which serves typically and atypically developing children three months to three years, and The Early Learning Program, which serves children from three years through six years, (with and without disabilities). The programs are accredited by National Association for the Education of Young Children. Graduate students may observe, participate, and conduct approved research in these programs.

Educational Foundations

**Department of Human Development and Learning
in the College of Education**

Dr. Patricia Robertson, Department Chair

301E Warf-Pickel Hall
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The Department of Human Development and Learning does not offer a graduate degree but has courses that can be taken for graduate credit. See Course Listing in this catalog.

Educational Leadership

**Department of
Educational Leadership and Policy Analysis
in the College of Education**

Dr. Russell West, Interim Department Chair

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(423) 439-7619
e-mail: westr@etsu.edu

Faculty:

Glenn N. Bettis; Nancy Dishner; Hal Knight; Louise MacKay;
Russell Mays; Jasmine Renner; Terry Tollefson; Russ West.

The Department of Educational Leadership and Policy Analysis has as its primary purpose the graduate preparation of individuals who will serve as educational leaders in K-12 schools, community/technical colleges, four-year colleges and universities, and other organizations/agencies that offer educational programs and services. Programs in the department are approved by the Tennessee Department of Education. Programs leading to licensure are also approved by the National Council for the Accreditation of Teacher Education (NCATE). Student programs are individually designed to develop educational leaders through the study and practical application of educational foundations, theory, research, and field work.

Three degree programs are offered in the department, each of which has a unique emphasis: (1) master's degree (M. Ed.) program in educational leadership that leads to Beginning Administrator Licensure from the Tennessee Department of Education, (2) specialist in education degree (Ed. S.) that provides advanced preparation in educational leadership, and (3) doctor of education degree (Ed.D.) involving advanced study in educational leadership that culminates in the completion of a doctoral dissertation in the field of educational leadership.

Master of Education

Dr. Louise MacKay, Graduate Coordinator

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Program Admission Requirements

1. Students applying to the master's degree program in educational leadership must meet the general requirements for admission to the School of Graduate Studies, transfer of credit, and time limitations specified in the front section of this catalog. In addition, applicants must meet the specific requirements for admission to the department identified in this catalog.
2. Applicants may apply at any time during the year, although admission decisions will be made approximately one semester prior to the start of a new cohort group. This requires an October 1 application deadline for programs beginning in January, and a May 1 application deadline for programs beginning in August.
3. Applicants for admission to programs leading to a master's degree must show a minimum overall undergraduate GPA of 2.75 or an upper level GPA of 3.00 on a 4.00 scale. Their GPAs in professional education, psychology, and major field of study, each figured separately, must also be above 2.75. All exceptions to the 2.75 GPA for admissions must be approved on appeal. Only professionally certificated teachers with pre-K-12 teaching experience will be accepted.

A student must be admitted to the master's degree program to receive credit toward the degree. Applicants for admission will be required to achieve Tennessee standards for administrative endorsements before being granted consideration for recommendation for public school certification. Prior to being admitted students must also submit: (a) a letter of support from the candidate's superintendent or other comparable supervisor; (b) three additional letters of recommendation; (c) a resume; and (d) a copy of their teaching certificate. Applicants will also be asked to participate in a personal interview with department and local school district personnel and complete written exercises.

Concentration Requirements

Cohort – All students in the Master of Education program in educational leadership will move through the degree program as part of a cohort group. Cohort students will begin the program in the same semester (usually in the spring) and continue through the program with the same group, taking one major course each succeeding semester until the program is completed. Applicants should contact the graduate coordinator of the ELPA master's degree program for information about when a new cohort program will be starting.

Required Courses – Graduate students admitted to the master's degree program in educational leadership begin their program completing ELPA 5100: Interpersonal Relations. The required sequence of courses has been approved by the Tennessee Department of Education as meeting requirements for Beginning Administrator Endorsement.

Summary of Required Courses for the Major in Educational Leadership

ELPA 5100 Interpersonal Relations	6 credits
ELPA 5200 Emerging Perspectives Influencing the School...	6 credits
ELPA 5300 Professional Needs of Individuals & Groups	6 credits
ELPA 5400 Developing Learners through Instructional Leadership	6 credits

ELPA 5500 Implementation Strategies: Making It Happen .	6 credits
ELPA 5600 Shaping the Quality and Character of the Institution	6 credits
EDFN 5010 Interdisciplinary Seminar	1 credit
Total	37 credits

Beginning Administrator Endorsement – The applicant for endorsement as principal or district-level supervisor must hold a teacher's professional certificate. The applicant should have completed the approved master's degree program in educational leadership. The applicant shall have had a minimum of three years of successful teaching experience and/or administrative experience in grades for which the certification is sought. The applicant must successfully pass the examination required by the Tennessee Department of Education. All students must successfully complete an appropriate, supervised, Standard Ninety-Day Internship or Alternative Ninety-Day Internship as part of the planned program.

Internship Program – While students enrolled in the master's degree program in educational leadership are engaged in relevant fieldwork throughout their program of study, they must complete a focused internship as part of their educational experience. The internship may take one of two forms, the Standard Ninety-Day Internship and the Alternative Ninety-Day Internship. In the Standard Ninety-Day Internship, candidates will have a minimum experience of 85 days in school settings and five days in a noneducational setting (e.g., business or community agency).

Candidates unable to pursue the Standard Ninety-Day Internship may develop an Alternative Ninety-Day Internship experience in collaboration with their graduate advisor. Candidates will be able to accumulate their 90 days of internship in school and community settings over six semesters through a combination of different activities. The 90 days accumulated over six semesters will be logged and verified by signatures from the superintendent, supervising mentors, and the faculty advisor. Both the Standard and the Alternative Ninety-Day Internships lead to a "Type B" Beginning Administrator Endorsement at the completion of the master's degree program.

Applicants interested in learning more about the internship program and licensure options should contact the Graduate Coordinator.

Portfolio Development – While in the program students will develop a professional portfolio, the presentation and committee review of which will serve as a culminating experience. Development of the portfolio provides each student with opportunities for reflection and self-evaluation. The portfolio also serves to spotlight skills and accomplishments that will be of interest to future employers. Specific information on the required elements for the portfolio may be obtained from the Graduate Coordinator.

Performance Assessment – Students in the master's degree program in educational leadership will be engaged in assessments that are based on the domains of competence underlying the thematic core curriculum. These assessments will include written examinations, videotaped performances, materials development, research projects, internship performance, and oral presentations.

Specialist in Education

Specialist in Education (Ed.S.) Degree Program in Educational Leadership

Dr. Louise MacKay Graduate Coordinator
Administrative Endorsement Concentration

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Dr. Russell West, Graduate Coordinator
School System Leadership and Teacher Leadership Concentrations
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Program Admission Requirements

The Department of Educational Leadership and Policy Analysis offers three concentrations leading to the specialist in education degree (Ed.S.): administrative endorsement, school system leadership, and teacher leadership. The administrative endorsement concentration leads to beginning administrator certification and is designed to prepare students for entry-level positions as principals or district-level supervisors. The school system leadership concentration is designed for practitioners who already possess administrative certification and desire to work in central office positions in the public schools. The teacher leadership concentration is designed to meet the needs of practicing teachers in the public schools who have a desire to develop a greater understanding of the teaching-learning process and the role of teacher leaders in schools. Applications for admission to Graduate School and to the Ed.S. program may be obtained by contacting the office of the School of Graduate Studies. All students must submit a resume as part of their application. Those applying to the Administrative Endorsement or Teacher Leadership concentration must also submit a copy of their teaching certificate(s).

Transfers From Other Institutions – Students must earn a minimum of 31 semester hours of credit above the master’s degree to become eligible for the award of the specialist degree. Nine semester credits of appropriate graduate credit earned after completion of the master’s degree from an accredited institution may be used in an Ed.S. program, if recommended by the student’s graduate committee and approved by the registrar, program coordinator, and deans of the College of Education and School of Graduate Studies.

Screening – Potential students will be notified of screening times. The screening process consists of an evaluation of each student in terms of selected criteria for admission. Each criterion has been assigned a numerical value. The total of these values equals a possible 100 points:

1. Writing skills, 10 points;
2. Scholarship, graduate level, 15 points;
3. Speaking skills, 10 points;
4. Evidence of leadership to date, 10 points;
5. Estimated leadership potential, 10 points;
6. Graduate Record Examination scores—verbal and quantitative, 15 points; (The scores must be obtained within 5 years of date of application)
7. Employment record, 10 points;
8. Quality of four letters of recommendation (each 5 points), 20 points.

Uniform evaluation sheets are utilized by an appointed screening committee. After study of the student’s credentials and an interview with the student, the committee meets and summarizes the scores. The screening committee will administer the screening process and recommend that the student be accepted or rejected for advanced graduate study in the department leading to the Ed.S. degree. Recommendations may be provided by the screening committee for subsequent rescreening, if deemed appropriate. An additional screening may be required for admission to the Administrative Endorsement Concentration. Further details are available from the program coordinator.

Concentration Requirements

Advisory Committee – Each student who achieves admission to the department as an advanced graduate (Ed.S.) student will be assigned a

three-member advisory committee, with one member designated as the chair, who serves as the student’s advisor.

Final Comprehensive Examination – This examination may be written and/or oral and is administered by the student’s advisory committee at a time designated each semester by the department. The examination may cover the entire field of study, including practicum, field study, or internship experiences.

Time Limits – Credit received beyond the master’s degree and more than five years prior to the awarding of the Ed.S. degree will not be accepted as part of Ed.S. degree requirements.

Residency – One semester or one full summer of full-time residency is required. The student will, with the approval of the chair of the advisory committee, register for no less than six semester credits of regular coursework during the residency period.

Degree Requirements – The basic requirement for an Ed.S. degree is a planned and approved program of coursework and other experiences, for which credit is awarded beyond the master’s degree. The student must complete a minimum 31-credit program beyond the master’s degree. Students must take coursework and prove competence in one of the three concentrations. The credits indicated in each area of study and the totals are the minimum requirements. As graduate committees are charged with evaluation of the student’s competence, work may be prescribed beyond these requirements (see programs which follow).

Educational Specialist (Ed.S.) Program with Administrative Endorsement, School System Leadership, and Teacher Leadership Concentrations

Leadership Core Requirements for All Concentrations

ELPA 6450 Leadership Studies	3 credits
ELPA 6951 Seminar in Research Analysis and Interpretations	3 credits
or	
ELPA 6872 Technology Applications for Educational Leaders	3 credits
ELPA 6220 Specialist Seminar	1 credit
Total	7 credits

Specific Requirements for the Administrative Endorsement Concentration:

ELPA 6100 Interpersonal Relations	6 credits
ELPA 6200 Emerging Perspectives Influencing the School	6 credits
ELPA 6300 Professional Needs of Individuals & Groups	6 credits
ELPA 6400 Developing Learners through Instructional Leadership	6 credits
Total	24 credits
Total for the Ed.S. Degree	31 credits

In order to meet coursework requirements for certification, students in this concentration are also required to take ELPA 6500 and 6600.

Specific Requirements for the School System Leadership Concentration

(Must include 12 credits within each of two areas of specialization for a total of 24 credits.)

Leadership Core **7 credits**

Supervision of Instruction Specialization Required:

ELPA 6720 Supervisory Techniques	3 credits
ELPA 6020 Seminar in Educational Supervision	3 credits

Guided Electives (6 credits):

CUAI 5910 Assessment Techniques in the Classroom	3 credits
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ELPA 6030 Instructional Leadership	3 credits
ELPA 6850 Integrating Public Agencies	3 credits
ELPA 6010 Leadership for Lifelong Learning	3 credits
ELPA 6452 Effective Organizational Cultures	3 credits
ELPA 6453 Ethics for Educational Leaders	3 credits
ELPA 6561 Organization Development	3 credits
ELPA 6861 Human Resource Function	3 credits
ELPA 6563 Adult Learner	3 credits
ELPA 7810 Educational Statistics	3 credits
ELPA 6581 Internship in Educational Leadership	3 credits
PEXS 5340 Risk Management and Assessment in Sports	3 credits
Total	12 credits

Strategic Planning/Budgeting Specialization Required:

ELPA 6451 Strategic Planning & School-Based Decision-Making	3 credits
ELPA 6841 School Finance & Business Methods	3 credits

Guided Electives (6 credits):

CUAI 5910 Assessment Techniques in the Classroom	3 credits
ELPA 6820 Law for Organizational Leaders	3 credits
ELPA 6830 School Housing & Transportation	3 credits
ELPA 6861 Human Resource Function	3 credits
ELPA 7810 Educational Statistics	3 credits
ELPA 6581 Internship in Educational Leadership	3 credits
Total	12 credits
Total for the Ed.S. Degree	31 credits

Specific Requirements for the Teacher Leadership Concentration

(Must include 7 credits from the teacher leadership core, 12 credits from the teacher leadership area, 9 credits from the teacher and learning specialization and 3 credits from the content area specialization.)

Leadership Core 7 credits

Teacher Leadership Area:

ELPA 6452 Creating Effective Organizational Cultures	3 credits
ELPA 6453 Ethics for Educational Leaders	3 credits
ELPA 6555 Reflective Practice I	3 credits
ELPA 6556 Reflective Practice II	3 credits
ELPA 6558 Innovative Practices in Classroom Leadership	3 credits
Total	12 credits

Teacher and Learning Specialization (Total of 9 credits)

Required:

CUAI 5910 Assessment Techniques in the Classroom	3 credits
CUAI 5215 Documenting the Scholarship of Teaching I	3 credits
CUAI 5216 Documenting the Scholarship of Teaching II	3 credits
Total	9 credits

Content Area Specialization (Total of 3 credits)

Required:

(Courses are taken in the student's area of teaching specialty; e.g., Early Childhood Education, Math Education, Science Education, or in the disciplines.)

Total for the Ed.S. Degree 31 credits

Field Experience – Field-based experiences will be required in a number of courses. Students enrolled in the Ed.S. program will be required to complete a major field project that results in a culminating experience such as the completion and presentation of an action research project, an evaluation project, or an in-depth study of a contemporary issue or practice

in education. Specialist Seminar (ELPA 6220) will provide a framework for the culminating experience. This seminar should not be taken before at least 24 semester credits have been completed in the Ed.S. program.

Evaluation – The evaluation of an advanced graduate student is a function of instructors and a graduate committee. The latter has full authority for program planning and the evaluation of written and/or oral final comprehensive examinations, provided that all university and departmental requirements have been met. Graduate committees will consider the student's professional purposes and needs, progress in terms of individually planned programs, writing and speaking ability, general competence, apparent propensity for their intended profession, and state certification requirements. To be cleared for the award of the Educational Specialist degree, a student must be recommended by the graduate committee, whose chair will report to the Deans of the College of Education and of the Graduate School, and the program coordinator that the student has fulfilled the requirements of the program.

Beginning Administrator Endorsement – The applicant for endorsement as principal or district-level supervisor must hold a teacher's professional certificate. The applicant should have completed the approved program in educational leadership. The applicant must have had a minimum of three years of successful teaching experience and/or administrative experience in grades for which the certification is sought. The applicant must successfully pass the examination required by the Tennessee Department of Education. All students must successfully complete an appropriate, supervised, Standard Ninety-Day Internship or Alternative Ninety-Day Internship as part of the planned program to be eligible for the Professional Administrative Endorsement.

Both the Standard and Alternative Ninety-day Internships lead to a "Type B" Beginning Administrator Endorsement upon completion of all certification requirements.

Doctor of Education

Doctor of Education in Educational Leadership

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Program Admission Requirements:

The Department of Educational Leadership and Policy Analysis offers four concentrations leading to the doctorate in education (Ed.D.): school leadership, classroom leadership, postsecondary and private sector leadership, and administrative endorsement. The programs are designed to allow the student and advisor considerable latitude in program planning. The following

pages summarize the components of these four concentrations. Applicants should refer to the sections on admission to the School of Graduate Studies, transfer of credit, and time limitations outlined in the front section of this catalog. All applicants must submit a resume with their application. Those applying to the Administrative Endorsement or Classroom Leadership concentration must also submit a copy of their teaching certificate(s).

The Screening Process – All students who apply to the Graduate School for the Doctor of Education degree must be screened for initial admission. The screening process consists of an evaluation of each student in terms of selected criteria for admission. Each criterion has been assigned a numerical value. The total of these values equals a possible 100 value points:

1. Writing skills, 10 points;
2. Scholarship, graduate level, 15 points;
3. Speaking skills, 10 points;
4. Evidence of leadership to date, 10 points;
5. Estimated leadership potential, 10 points;
6. Graduate Record Examination scores – verbal and quantitative, 15 points; (These scores must be obtained within five years of date of application)
7. Employment record, 10 points;
8. Quality of four letters of recommendation (each 5 points), 20 points.

Uniform evaluation sheets are utilized by an appointed screening committee. After study of the student's credentials and an interview with the student, the committee meets and summarizes the scores. Recommendations may be provided by the screening committee for acceptance, conditional acceptance, rejection, or for subsequent rescreening, if deemed appropriate.

Screening is not a prerequisite to initial class enrollment in advanced graduate study. However, it is a program requirement. Students cannot be granted full admission to a planned program until they have been screened and officially admitted to advanced study. An additional screening will be conducted for admission to the Administrative Endorsement concentration. Further details are available from the Program Coordinator.

Concentration Requirements

Advisory Committee – Each student who has achieved admission to the Doctor of Education program in Educational Leadership will be assigned an advisor, who, in most cases, will serve as the student's committee chair throughout the degree program. Prior to filing a program of study, the student's committee will be increased to four members, with the student and the committee chair agreeing upon the members to be added to the committee.

The Qualifying Examination – The examination will be written and oral and will be administered by the student's graduate committee after the student has completed most of the planned program. If and when the qualifying examination is favorably reported to the program coordinator and Deans of the College of Education and the Graduate School, the student may make application for candidacy for the doctorate through the offices of the Deans of the College of Education and the Graduate School.

The Final Examination – The examination will be oral and will be principally devoted to an evaluation and defense of the student's dissertation. A member of the graduate faculty from outside the candidate's committee and department must be present at the defense to monitor the process. The procedure to be followed in scheduling an oral defense and the format for the graduate faculty representative's narrative report are available from the School of Graduate Studies.

Regulations and Procedures Related to Student Assessments

A student must complete 9 to 12 semester credits of coursework before submitting a program of study for approval. The determination of the appropriate semester for a qualifying examination is a matter to be decided between the student and the advisory committee, but it should come after the student has completed most of the coursework. All qualifying examinations (written and oral) are to be taken at the appropriate time scheduled by the department. Students will not be allowed to complete a program during the same semester in which they are formally admitted to doctoral candidacy, nor will they be allowed to register for more than nine dissertation credits in a semester. Students may not defend the dissertation in the same semester as they defend the dissertation proposal.

The dissertation must be presented to committee members in final form at least two weeks before the final defense. The final oral examination will be a defense of the finished research report after the dissertation has been accepted by the student's graduate committee. The dissertation must be approved by the Deans of the College of Education and the School of Graduate Studies.

Requirements for Completion of Degree – The central idea of the doctoral program is the development of competence in the areas of greatest significance to educational leaders. Because of this, course requirements are described as blocks or components in the total program of the student. Each student's total program will be determined upon the basis of four factors: (1) training and coursework completed before admission to advanced study; (2) intended area of work as a professional; (3) success in coursework and other experiences in the early parts of the program; and (4) competence in the various areas of study as assessed and evaluated by the graduate committee in written and/or oral examinations. In the final analysis, because each student's graduate committee is responsible for the evaluation of student competence, work may be prescribed beyond these requirements.

Residency Requirements for Doctorate — A "Declaration of Intent to Establish Residency," approved by the student's advisory committee prior to the beginning of the residency period, must be filed with the Deans of the College of Education and of the School of Graduate Studies, the department, and the chair of the student's advisory committee. Subsequently, students should consult with their advisor on residency. Four options for fulfilling the residency requirements have been approved.

1. A residency of two consecutive semesters, during which the student must not be employed more than half time.
2. A residency of two consecutive semesters, which shall include one semester of not more than half-time employment and one with no employment restrictions.
3. A residency of four consecutive summer semesters (including one Pre-Summer), during which times the student may not work.
4. A "continuous" residency that requires each student to be continuously enrolled in the program (spring and fall semester) from the time of the student's initial course in the program until the qualifying examination is completed.

Each student, regardless of the residency option selected, must receive prior approval of a residency plan by the student's advisor. Each student must complete the required 10 approved residency activities and submit portfolio documentation of their completion to the advisory committee chair. Completion of the residency requirements will be reported to the program coordinator and Deans of the College of Education and Graduate School.

Any modification of the Residency Plan must be approved, in writing, by the student's advisory committee chair.

Dissertation – Each doctoral candidate must complete a dissertation as a major requirement for the Ed.D. degree. The dissertation topic will be selected by the candidate with the advice and approval of the student’s committee. The student must present a prospectus, describing the research project, for review and approval by the committee. All dissertation proposals must be reviewed and approved by the ETSU Institutional Review Board (IRB) before data are collected. Each doctoral candidate must register for a minimum of three semester hours of ELPA 7960 each semester until completing the required 12 hours of dissertation credit hours.

As explained in the catalog description for ELPA 7990-Readings and Research, doctoral candidates who have already taken the required number of dissertation hours stipulated on their program of studies MUST register for three semester hours of ELPA 7990 each semester until they have successfully defended their dissertations. Students who will defend their dissertations in the initial month of the semester may register for 1 semester credit hour of this course; those completing in the second month may register for 2 semester credit hours.

After the dissertation research has been conducted and the results have been analyzed, written, and accepted by the committee, the dissertation must be processed in the proper electronic format and submitted to the Dean of the Graduate School for approval within the established timeline. General guidelines on form for the dissertation are available from the School of Graduate Studies.

Final Assessment – The evaluation of the work and potential of a student admitted to advanced graduate study leading to a degree is a function of the graduate committee, which will consider: (1) the student’s background when admitted to advanced study; (2) grade point average, which must meet the East Tennessee State University School of Graduate Studies standards; (3) qualifying and final examinations; (4) general professional posture; and (5) the defense of the dissertation.

To be awarded a Doctor of Education degree, a student must be recommended by the graduate committee, whose chair will report that the student has fulfilled all of the requirements.

Required Courses – A graduate committee may require other semester credits of coursework not herein described if circumstances warrant such a decision. Specific requirements for an Ed.D. degree will be individually determined.

Doctor of Education (Ed.D.) Program with School Leadership, Classroom Leadership, Postsecondary and Private Sector Leadership, and Administrative Endorsement Concentrations

For students already possessing a valid master’s degree, or equivalent, the minimum requirements for the doctoral program are for a 66 semester-credit program which includes the following courses and activities:

ELPA 7810 Educational Statistics	3 credits
ELPA 7811 Quantitative Research,	
or	
ELPA 7812 Qualitative Research	3 credits
ELPA 7813 Research in Educational Leadership	3 credits
ELPA 6010 Leadership for Lifelong Learning	3 credits
ELPA 6810 Theories of Educational Administration	3 credits
ELPA 6581 Internship in Educational Leadership	3 credits
ELPA 7960 Dissertation	12 credits

Six semester credits in research, statistics, evaluation, or technology
Six semester credits in a cognate area other than Educational Leadership

Six semester credits of Foundations of Education, to include EDFN 6730

Eighteen semester credits of guided electives in Educational Leadership: in the Classroom Leadership Concentration, these must include ELPA 6558; in the Postsecondary and Private Sector Leadership

Concentration these must include ELPA 6563, ELPA 7820 (or equivalent), and ELPA 7821 (or equivalent)

For qualified students already possessing valid master’s degrees, or the equivalent, and seeking an Ed.D. degree leading toward endorsement as a Beginning Administrator, the requirements are for a minimum program of 66 semester credits, to include:

ELPA 7810 Educational Statistics	3 credits
ELPA 7811 Quantitative Research, or	
ELPA 7812 Qualitative Research	3 credits
ELPA 7813 Research in Educational Leadership	3 credits
ELPA 6010 Leadership for Lifelong Learning	3 credits
ELPA 6810 Theories of Educational Administration	3 credits
ELPA 6581 Internship in Educational Leadership	3 credits
ELPA 7960 Dissertation	12 credits

Thirty-six semester credits of sequenced coursework in Educational Leadership, to include ELPA 6100, 6200, 6300, 6400, 6500, and 6600

For students holding master’s degrees and educational specialist degrees, or their equivalents, the minimum requirements for the doctoral program would be for a 42 semester-credit program, to include the following:

ELPA 7810 Educational Statistics	3 credits
ELPA 7811 Quantitative Research,	
or	
ELPA 7812 Qualitative Research	3 credits
ELPA 7813 Research in Educational Leadership	3 credits
ELPA 6010 Leadership for Lifelong Learning	3 credits
ELPA 6810 Theories of Educational Administration	3 credits
ELPA 6581 Internship in Educational Leadership	3 credits
ELPA 7960 Dissertation	12 credits

The 12 credit hours of Guided Electives for the educational leadership component of each of these concentration areas include the following courses; however, advisors may recommend substitutions of other courses that would better address individual students’ needs in the area of educational leadership:

In the Classroom Leadership Concentration, this must include ELPA 6558

In the Postsecondary and Private Sector Leadership Concentration this must include ELPA 6563, ELPA 7820 (or equivalent), and ELPA 7821 (or equivalent).

For qualified students already possessing valid specialist’s degrees, or their equivalent, and seeking an Ed.D. degree leading toward endorsement as a Beginning Administrator, the requirements are for a minimum program of 42 semester credits, to include:

ELPA 7810 Educational Statistics	3 credits
ELPA 7811 Quantitative Research,	
or	
ELPA 7812 Qualitative Research	3 credits
ELPA 7813 Research in Educational Leadership	3 credits
ELPA 6010 Leadership for Lifelong Learning	3 credits
ELPA 6810 Theories of Educational Administration	3 credits
ELPA 6581 Internship in Educational Leadership	3 credits
ELPA 6100 Interpersonal Relations	3 credits
ELPA 6200 Professional Needs of Individuals and Groups ..	3 credits
ELPA 7960 Dissertation	12 credits

(In order to meet the coursework requirements for certification, students in this program concentration area would also be required to take ELPA 6300, 6400, 6500, and 6600. However, as these courses would not be part of the formal degree program, they could be taken following the qualifying examination, concomitantly with the dissertation credits.)

The Guided Electives for the educational leadership component of each of these concentration areas include the following courses however,

advisors may recommend substitutions of other courses that would better address individual students' needs in the area of educational leadership:

School Leadership Concentration

- ELPA 6020 Seminar in Educational Supervision
- ELPA 6030 Instructional Leadership
- ELPA 6450 Leadership Studies
- ELPA 6451 Strategic Planning & School-Based Decision-Making
- ELPA 6452 Creating Effective Organizational Cultures
- ELPA 6453 Ethics for Educational Leaders
- ELPA 6558 Innovative Practices in Classroom Leadership
- ELPA 6561 Organizational Development
- ELPA 6820 Law for Educational Leaders
- ELPA 6830 School Housing & Transportation
- ELPA 6841 School Finance & Business Methods
- ELPA 6850 Integrating Public Agencies
- ELPA 6861 Human Resource Function
- ELPA 6872 Technology Applications for Educational Leaders
- ELPA 6953 Policy Analysis
- ELPA 6954 Educational Program Evaluation
- ELPA 6955 Grant and Proposal Development
- ELPA 6955 Grant & Proposal Development
- ELPA 6956 Policy Analysis
- EDFN 6730 Historical & Philosophical Foundations of Education

Classroom Leadership Concentration

- ELPA 6020 Seminar in Educational Supervision
- ELPA 6030 Instructional Leadership
- ELPA 6450 Leadership Studies
- ELPA 6451 Strategic Planning & School-Based Decision-Making
- ELPA 6452 Creating Effective Organizational Cultures
- ELPA 6453 Ethics for Educational Leaders
- ELPA 6555 Reflective Practice I
- ELPA 6556 Reflective Practice II
- ELPA 6561 Organizational Development
- ELPA 6872 Technology Applications for Educational Leaders
- ELPA 6952 Action Research
- ELPA 6954 Educational Program Evaluation
- ELPA 6955 Grant & Proposal Development
- ELPA 6956 Policy Analysis

Postsecondary And Private Sector Leadership Concentration

- ELPA 6450 Leadership Studies
- ELPA 6452 Creating Effective Organizational Cultures
- ELPA 6561 Organizational Development
- ELPA 6850 Integrating Public Agencies
- ELPA 6953 Policy Analysis
- ELPA 6954 Educational Program Evaluation
- ELPA 6955 Grant & Proposal Development
- ELPA 7110 Community Colleges in the United States
- ELPA 7220 Supervising Community College Curriculum Planning
- ELPA 7820 Administration of Higher Education
- ELPA 7821 Higher Education Law and Finance

Beginning Administrator Endorsement – The applicant for endorsement as principal or district-level supervisor shall hold a teacher's professional certificate. The applicant should have completed the approved program in educational leadership. The applicant shall have had a minimum of three years of successful teaching experience and/or administrative experience in grades for which the certification is sought. The applicant must successfully pass the examination required by the Tennessee Department of Education. All students shall successfully complete an appropriate,

supervised, Standard Ninety-Day Internship or Alternative Ninety-Day Internship as part of the planned program to be eligible for the Professional Administrative Endorsement.

Educational Media and Educational Technology

Master of Education in Educational Media and Educational Technology

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 e-mail: danielsh@etsu.edu

Department of Curriculum and Instruction in the College of Education

Dr. Karilee Freeberg, Department Chair
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 (423) 439-7595
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Faculty:

Rhona Cummings; Lee Daniels; Karilee Freeberg; Dilawar Grewal; Leslie Perry; Elizabeth Ralston.

The program of Educational Media and Educational Technology offers a master of education degree in Educational Media and Educational Technology with concentrations in educational communications and technology or school library media. The purpose of the educational communications technology concentration is to meet the needs of educators. The concentration's main thrust is a systematic approach to the principles of instructional design, production and management of learning resources, and application of technology to the teaching/training domains. The purpose of the school library media concentration is to prepare students for careers in school libraries. The program offers courses leading to Tennessee certification as school library media specialists. Additional information may be obtained from the department chair and/or program coordinator.

Program Admission Requirements

Students seeking admission to the Educational Media and Educational Technology Program must first meet the general requirements of the Graduate School and the Department of Curriculum and Instruction. If GPA is below a 3.0., the GRE is required. Obtaining a minimum of 2400 points based on the following formula:

- (1) Sum of the GRE aptitude score (V+Q+A)
- (2) GPA x500, and
- (3) The sum of (1) and (2)

An oral or written interview may be requested by the program chair, in specific cases.

Educational Media and Educational Technology Common Core

EDFN	5010 Interdisciplinary Seminar	1
MEDA	5000 History and Philosophy of Educational Media and Educational Technology	3

MEDA 5400 Integrating Technology in Teaching and Learning.....	3
MEDA 5700 The Instructional Role of Educational Media and Educational Technology.....	3
MEDA 5950 Research in Educational Media and Educational Technology.....	3
Total Core Requirements	13

Educational Communications and Technology Concentration

MEDA 5507 Principles of Instructional Design and Production	3
*MEDA/CSCI 5517 Essentials of Multi-Media	3
*MEDA/CSCI 5527 Computer-Based Authoring Systems	3
MEDA 5680 Organization and Administration of Instructional Technology Programs	3
MEDA 5800 Information Networks - Resource Sharing	3
MEDA 5850 Organizing and Managing Content On the Internet... 3	
MEDA 5930 Practicum with Seminar in Educational Communications and Technology	2
Guided Elective	3
Total Degree Requirements	36

School Library Media Concentration

MEDA 5627 Children's Materials	3
MEDA 5635 Basic Reference Materials	3
MEDA 5637 Young Adult Materials	3
MEDA 5710 School Library Media Program Development and Management	3
MEDA 5720 Organization of Library Media	3
MEDA 5925 Practicum/Internship/Enhanced Student Teaching ..	5
Guided Elective	3
Total Degree Requirements	36

Elementary Education

Master of Education in Elementary Education

**Katherine T. Driskell, Graduate Coordinator,
Elementary Education**
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**Department of Curriculum and Instruction
in the College of Education**

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Faculty:

Martha Collins; Rhona Cummings; Sidney Crumwell; H. Lee Daniels; Katherine T. Driskell; Edward J. Dwyer; Karilee Freeberg; Denee Mattioli; Leslie Perry; Elizabeth Ralston; John M. Taylor.

Admission Standards – The major purpose of this degree is to improve the quality of teaching at the elementary level by broadening the background of teachers in the areas of study related to elementary teaching and preparing teachers as action researchers.

Students seeking admission to graduate programs in the Department of Curriculum and Instruction must first meet general requirements of the School of Graduate Studies. In addition, the following specific admission criteria apply:

1. A candidate who has an undergraduate GPA of 3.0 or above on a 4.0 scale for all work completed is eligible for admission.
2. A candidate who has an undergraduate GPA of less than 3.0 on a 4.0 scale may be granted admission by either of the following two procedures:
 - a. Obtaining a minimum of 2400 points based on the following formula:
 - (1) the sum of the GRE aptitude scores (V+Q+AW),
 - (2) GPA x 500, and
 - (3) the sum of (1) and (2).
 Scores on the GRE-AW will be substituted for the Analytical (A) scores using a scaled transfer.
 - b. Participating in an interview with the appropriate admission committee. The candidate will be responsible for providing the admission committee with information for consideration in admission decisions. Factors to be considered include teaching experience; scores on standardized tests; GPA during the entire undergraduate experience, during the last two years of undergraduate school, and in the major; performance in graduate courses taken; recommendations of supervisors and colleagues; quality of undergraduate school(s) attended; oral communication skills; and skill in writing, which will be determined in part by the candidate's extemporaneous writing during the interview process.

Matriculation – The coordinator of the program to which the prospective candidate has been admitted serves as the initial advisor. When students become eligible for candidacy, their advisory committees are selected by the student and approved by the program coordinator. Students who anticipate candidacy for a degree are strongly encouraged to take courses based on guidelines provided by their advisor.

Students determining to complete the Master of Education degree in Elementary Education are required to meet with the chair of their advisory committees to plan the sequence of courses leading to the degree. They must successfully complete the required core and professional development courses. The content electives must be approved by the advisor.

A comprehensive oral final examination is required of all students completing graduate programs in elementary education. Presentation of the Professional Level Teaching Portfolio is a required part of the oral examination. Candidates meet with their advisor at the beginning of their final semester to plan for these examinations.

Specific program requirements are presented below:

**Program Components for Master of Education Degree
in Elementary Education**

I. Core Courses

EDFN 5010 Interdisciplinary Seminar	1 credit
EDFN 5050 Social and Political Influences on Schools	3 credits
EDFN 5950 Methods of Research	3 credits
CUAI 5199 Teaching in a Diverse Society	3 credits
CUAI 5910 Assessment Techniques in the Classroom	3 credits
MEDA 5400 Integrating Technology in Teaching and Learning.....	3 credits
Total Core	16 credits

II. Professional Development Courses

- CUAI 5110 Elementary Curriculum
or
 - CUAI 5200 Middle School Curriculum 3 credits
 - READ 5120 Teaching Reading & Writing in
the Elementary School 3 credits
 - CUAI 5113 Instructional Excellence in Math (K-8) 3 credits
 - CUAI 5114 Instructional Excellence in Science (K-8) 3 credits
 - CUAI 5115 Instructional Excellence in Social Studies (K-8) .3 credits
- Total Professional Development 15 credits**

III. Content Courses

Courses selected from subject areas appropriate to the elementary school curriculum. Students and their advisors must agree on elective content courses.

Total Content 6 credits
Total Program 37 credits

See Curriculum and Instruction (CUAI), Educational Foundations (EDFN), and Media (MEDA) sections of this catalog for these course descriptions.

English

Master of Arts in English

**Department of English in
the College of Arts and Sciences**

Mark Holland, Graduate Coordinator

108 Burleson Hall
 Box 70683
 (423) 439-6681
 e-mail: hollandm@etsu.edu

Judith Slagle, Department Chair

103 B Burleson Hall
 Box 70683
 (423) 439-4339
 e-mail: slagle@etsu.edu

Faculty:

Ernest J. Branscomb; Michael A. Cody; Yousif Elhindi;
 Steven Gross; Darryl Haley; Styron Harris; Roberta T. Herrin;
 Mark Holland; Thomas Alan Holmes; Theresa Lloyd;
 Kevin E. O'Donnell; Jeffery Powers-Beck; Robert Sawyer;
 Catherine A. Sherrill; Judith W. Slagle; Isabel B. Stanley;
 Frederick O. Waage; Edwin W. Williams.

The Department of English offers a Master of Arts degree in English with a general grounding in both British and American literature, in addition to a selection of courses in creative writing, rhetoric, linguistics, and English education.

Program Admission Requirements

- A student applying to the graduate program in English should have:
1. An undergraduate English major with at least a 3.0 GPA (on a 4.0 scale)
 2. Satisfactory scores on the Graduate Record Examination aptitude test
 3. Three letters of recommendation

Applicants for graduate assistantships should submit a writing sample of 5 to 10 pages.

Anyone who does not meet these requirements may be admitted to the program conditionally upon the recommendation of the assistant chair for graduate studies in English and may be required to complete prescribed undergraduate courses without graduate credit. The student's background and experience will be considered.

Students elect to take the program with the option of writing or not writing a thesis. Because the program offers a broad-based degree, there is no concentration *per se*. Thirty hours are required for the thesis option and 33 hours for the non-thesis option; at least 70 percent of the minimum required hours must be taken from courses for graduate students only. The following courses do not count for credit toward the degree: ENGL 5019, Supervised Experience in Teaching (required for all teaching assistants, who must register for this course when they take the practicum in teaching freshman composition during the semester of their first teaching assignment); ENGL 5029, Supervised Experience in Research (required for all research assistants); and ENGL 5039, Supervised Experience in Administration (required for all administrative assistants). All students earning the M.A. in English must take the following core course:

- ENGL 5950 Methods of Research 3 credits

All students who choose the thesis option must take

- ENGL 5960 Thesis in English 3 credits

All graduate assistants who will serve as teaching assistants must satisfactorily complete the course below during any semester before their first teaching assignment:

- ENGL 5920 Studies in English Education: Writing:
Theory and Teaching 3 credits

Students choosing to write a thesis must complete 30 credit hours minimum, including ENGL 5950 and ENGL 5960. Students who choose not to write a thesis must complete 33 hours minimum, including ENGL 5950. All graduate assistants with teaching assignments must fulfill the condition for teaching assistants above. All courses not covered by the requirements and conditions herein stated may be chosen at the student's discretion with the guidance and advice of the department graduate coordinator.

To complete their degree work, all students must pass written and oral comprehensive examinations covering material from a reading list that will be made available to all students upon their entry into the program.

Environmental Health

Master of Science in Environmental Health

**Department of Environmental Health in
the College of Public and Allied Health**

Dr. Creg Bishop, Graduate Coordinator

101 Lamb Hall
 Box 70682
 (423) 439-4540
 e-mail: bishopc@etsu.edu

Dr. Phillip Scheuerman, Department Chair

65 Lamb Hall
 Box 70682
 (423) 439-7633
 e-mail: philsche@etsu.edu

Faculty:

Creg S. Bishop; Troy Burrow; Kurt J. Maier; Phillip R. Scheuerman; Kenneth Silver.

Purpose

The goal of this department is to prepare environmental specialists by increasing understanding of interrelationships between environmental factors and human health. Environmental health service needs are complex and increasing because of changes brought about by economic and technological advances. Technical specialists in environmental health require a comprehensive education in basic and applied sciences. The educational objectives of the department are to provide the student with an opportunity to:

1. Develop an understanding of the:
 - a. chemical, biological, physical, and social factors which affect the health of the community;
 - b. relevant concepts from the social and behavioral sciences; and
 - c. environmental health systems.
2. Become proficient in:
 - a. identifying community environmental health needs;
 - b. information collection, storage, retrieval, analysis, and dissemination; and
 - c. environmental monitoring, analysis, and management.
3. Acquire skills in the application of the above techniques and knowledge for solution of environmental health problems.

Program Admission Requirements

1. A baccalaureate degree from an accredited institution.
2. A 3.0 grade point average on a 4.0 scale.
3. An acceptable score on the General Graduate Record Examination (GRE).
4. A minimum of 30 semester hours of natural and physical science courses, including at least one semester of general microbiology, one year of general biology, and one year of general chemistry; college algebra and trigonometry or higher math are also required.
5. Three letters of reference.

Admission is based on the GPA, GRE scores, quality of reference letters, strength of background (coursework, college attended, and work experience), and available space in the program. The department can grant conditional admission to candidates not meeting all of the minimum requirements. For example, work experience and letters of reference can be used to justify conditional admission for students not meeting one of the minimum requirements (e.g., GRE below what department considers acceptable or GPA below 3.0). However, work experience cannot be substituted for one of the requirements. All applicants must submit an official transcript, GRE scores, and letters of reference before their application will be reviewed.

Program Graduation Requirements

- 1) For the thesis option, a minimum of 30 semester credit hours of courses and 4 semester credit hours of thesis (ENVH 5960). Thesis option students must complete and defend a thesis as approved by the student's Advisory Committee. For the non-thesis option, a minimum of 36 semester credit hours of courses and a course-related research project. The research project must be completed as an additional requirement for a course within the graduate program and taught by the student's major professor.

- 2) All designated deficiencies must be removed prior to completion of the program.
- 3) The maintenance of a 3.0 grade point average on a 4.0 scale. Continuation of a student who earns below a 3.0 is based on the current academic regulations established by the School of Graduate Studies.
- 4) Environmental Health Practice I (ENVH 5100) is required of all students who lack an undergraduate degree in environmental health.
- 5) Seminar (ENVH 5910) must be completed during the first semester of residence.
- 6) Pass a written comprehensive exam demonstrating core course competency (epidemiology, biostatistics, toxicology, environmental health practice, and designated concentration). The exam must be taken in the final semester of the student's program, and it will be administered on a designated date each semester.

Core Course Requirements

ENVH 5357	Toxicology	3 credits
PUBH 5310	Biostatistics	3 credits
PUBH 5400	Epidemiology	3 credits
ENVH 5910	Seminar	1 credit

Concentration Requirements

Students must complete one of two concentrations within the M.S.E.H. program. Both the Administrative concentration and the Specialist concentration permit custom designed programs for students pursuing careers in Environmental Sanitation, Solid and Hazardous Waste Management, Occupational Health and Safety, Water Resource Management, Environmental Toxicology, etc.

M.S.E.H. Administrative Concentration

All students electing the M.S.E.H. administrative concentration must complete the following courses in addition to the core courses.

ENVH 5860	Environmental Health Administration	3 credits
ENVH 5870	Public Health Law	3 credits
ENVH 5890	Environmental Planning	3 credits

Additional electives are to be selected in consultation with the student's advisory committee for a minimum of 34 credits for the thesis option and 36 credits for the coursework option.

M.S.E.H. Specialist Concentration

All students electing the M.S.E.H. specialist concentration must complete at least 2 of the following courses in addition to the core courses.

ENVH 5200	Environmental Chemistry	4 credits
ENVH 5250	Environmental Microbiology	4 credits
ENVH 5640	Environmental Risk Assessment	4 credits
ENVH 5890	Environmental Planning	3 credits

Additional electives are to be selected in consultation with the student's advisory committee for a minimum of 34 credits for the thesis option and 36 credits for the coursework option.

Family and Consumer Sciences

Department of Family and Consumer Sciences in the College of Business and Technology

Amelia Brown, Interim Department Chair

208 Hutcheson Hall
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e-mail: abrown@etsu.edu

The Department of Family and Consumer Sciences does not offer a graduate degree but has courses that can be taken for graduate credit. See Course Listing in this catalog.

Foreign Languages

Department of Foreign Languages in the College of Arts and Sciences

Ken Hall, Department Chair

223A Rogers-Stout Hall
Box 70312
(423) 439-6896
e-mail: khall@etsu.edu

The Department of Foreign Languages does not offer a graduate degree but has courses that can be taken for graduate credit. See Course Listing in this catalog.

Gerontology Graduate Certificate

Colleges Of Public and Allied Health, Nursing, Business and Technology, Arts and Sciences, Medicine, and Education

Creg Bishop, Graduate Coordinator

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(423) 439-4540
e-mail: bishopc@etsu.edu

Don Samples, Administrative Coordinator

143 Nave Center
Box 70573
(423) 547-4905
e-mail: samplesd@etsu.edu

The Gerontology Graduate Certificate Program is an interdisciplinary 16-credit-hour program of study designed to provide the learner with specific leadership and management tools for the healthcare environment. The focus of the program is to educate students who will become leaders in improving the quality of life for older individuals and their families in Tennessee, the nation, and the world.

Admission to the Program

The criteria for admission to the Gerontology Graduate Certificate Program include:

1. A bachelor's degree from a regionally accredited institution.
2. A minimum undergraduate grade point average of 2.5 on a 4.0 scale.

Application materials which must be submitted to the School of Graduate Studies include: an application, a resume demonstrating interest and/or experience in gerontology, three (3) letters of reference, and official transcripts from all colleges attended.

All applications will be evaluated by an admissions committee composed of representatives from the Gerontology Steering Committee.

Course Requirements

The Gerontology Graduate Certificate will only be awarded to students who have been officially admitted to the program and have successfully completed 16 credit hours of approved coursework. A student may transfer up to nine (9) credit hours of approved coursework into the program. In the final semester, a student must complete a culminating experience as part of the Advanced Interdisciplinary Seminar in Gerontology. The time limit for use of credit toward the certificate is six (6) years from the date of enrollment in the earliest course applied toward the certificate, including transferred courses. In order to receive the certificate, a student must earn a cumulative grade point average of 3.0 or above on coursework.

A student may simultaneously pursue both the certificate and a graduate degree program if duly admitted to both programs. However, being admitted to a degree program and successfully completing coursework typically required for the graduate certificate does not automatically qualify a student for the certificate.

For more information and application materials, write or call:

College of Public and Allied Health
Gerontology Graduate Certificate Program
East Tennessee State University
P.O. Box 70573
Johnson City, TN 37614
Phone: (423) 547-4900
Web site: www.etsu.edu/cpah/geron.html
or
School of Graduate Studies
East Tennessee State University
P.O. Box 70720
Johnson City, TN 37614
Phone: (423) 439-4221

Program of Study

Each student, with the assistance of the assigned advisor, will design a Program of Study to include 10 hours of core requirements and a minimum of 6 hours of guided electives to be selected from listed courses. NOTE: Some clinical/discipline specific courses will have prerequisites that must be met.

Core Requirements

PUBH 5325 Health Policy, Politics, and Analysis	3
PUBH 5607 Gerontology and Health	3
IDGE 5500 Adv. Seminar in Gerontology	4

Guided Electives

FACS 5487 Nutrition and Disease Prevention	3
ALNU 5013 Life Span Assessment and Clinical Management	2
ALNU 5021 Case Management	2
ALNU 5031 Care of Older Adults in Structured Settings	2
CDIS 5210 Communication Problems of the Aging	3
CDIS 5310 Rehabilitative Audiology for Adults	3
PEXS 5647 Physical Dimensions of Aging	3
PEXS 5977 Exercise Management for Persons with Chronic Diseases	3
PHYT 5433 Neurotherapeutics III - Geriatrics	2
PUBH 5537 Thanatology	3
PUBH 5510 Long-Term Care Administration	3
PUBH 5607 Gerontology and Health	3
SOAA 5507 Sociology of the Aging	3
SOAA 5620 Sociology of Age and the Life course	3
Other electives as approved by the graduate faculty advisor.	

College of Nursing

Patricia L. Smith, Interim Dean

Janne Dunham-Taylor, Chair of Adult Nursing Department

312 Lamb Hall
Box 70629
(423) 439-4389
e-mail: dunhamta@etsu.edu

College of Public and Allied Health

Wilsie S. Bishop, Dean

Joanne Walker Flowers, Chair of Public Health Department

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e-mail: shields@etsu.edu

The Health Care Management Graduate Certificate Program is an interdisciplinary 18-credit-hour program of study designed to provide the learner with leadership and strategic management tools specifically for the health care environment. The focus of the program is to assist students to envision a broadened career perspective on the changing scope of health care delivery and management. Faculty from the colleges of Business and Technology, Nursing, and Public and Allied Health design and teach the courses within the program.

Admission to the Program

The criteria for admission to the Health Care Management Graduate Certificate Program includes:

1. A baccalaureate degree, and
2. A minimum grade point average (GPA) of 2.5 on a 4.0 scale.

Application materials which must be submitted to the School of Graduate Studies include an application, essay, official transcripts from all colleges attended, three (3) professional references, and a résumé. If a student is seeking simultaneous admission to a degree program in the colleges of Business and Technology, Nursing, or Public and Allied Health and the Health Care Management Certificate Program, the student must submit two application forms, a dual degree form, one set of the required credentials (transcripts, test scores, references, etc.) and pay one application fee. If a student is already admitted to one of the above degree programs in administration in the colleges of Business and Technology, Nursing, or Public and Allied Health and later wishes to be considered for admission to the Health Care Management Certificate Program, the student must only submit a completed application form indicating an interest in the certificate program and a dual degree form.

All applications will be evaluated by an admissions committee composed of representatives from the colleges of Business and Technology, Nursing, and Public and Allied Health. Factors given consideration in the admission decision include the following: grade point average, professional work experience, writing ability, demonstrated interest in health care management, and references. Applicants are encouraged to address their related accomplishments and goals in the essay and résumé.

First preference for admission will be given to candidates who meet all criteria and file a completed application no later than 60 days prior to the beginning of the semester in which the student plans to begin the program. Applications will be considered until the class is filled.

Health Care Management Graduate Certificate

**Colleges of Business and Technology, Nursing, and Public
and Allied Health**

Wilsie S. Bishop, Program Coordinator

104 Lamb Hall
Box 70623
(423) 439-4243
e-mail: bishopws@etsu.edu

Cynthia Taylor, Administrative Coordinator

104 Lamb Hall
Box 70623
(423) 439-8598
e-mail: taylorc@etsu.edu

College of Business and Technology

Linda Garceau, Dean

Phillip Miller, Chair of Management and Marketing Department

203 Sam Wilson Hall
Box 70625
(423) 439-4422
e-mail: millerpe@etsu.edu

Course Requirements

A minimum of 18 credit hours is required for the Health Care Management Graduate Certificate. Upon admission to the program, an individualized program of study is designed based upon evaluation of previous coursework and professional experience. A student may transfer up to nine (9) credit hours of approved coursework into the certificate program. Coursework previously counted toward an earned degree or an earned certificate may not be transferred into the Health Care Management Graduate Certificate Program. Upon successful completion of the program of study, students will receive a certificate of completion in Health Care Management.

A student may simultaneously enroll in the Health Care Management Graduate Certificate Program and a specified degree program if he/she is duly admitted to both programs. Up to 18 credit hours of coursework in the certificate program may be approved for transfer into the M.P.H., M.B.A. or M.S.N. degree programs.

For information and application materials, contact:

Health Care Management
 Graduate Certificate Program
 East Tennessee State University
 Box 70623
 Johnson City, TN 37614
 Attn: Cynthia Taylor
 Phone: (423) 439-4243
 Fax: (423) 439-5238
 e-mail: taylorc@etsu.edu

Program of Study

Each student will design a Program of Study to include two 3-credit-hour required courses and four 3-credit-hour electives (18 credit hours). The Program of Study will be developed by the student and the graduate faculty advisor and will be based upon the student's educational and experiential background and career goals. Courses are lodged in the departments of Accountancy (ACCT), Management (MGMT), and Marketing (MKTG), College of Business and Technology; Public Health (PUBH), College of Public & Allied Health; and Professional Roles/Mental Health Nursing (PMNU), College of Nursing.

Required Courses:

PUBH/PMNU/MGMT 5505
 Managing Health Care Organizations 3 credits
 MGMT/PMNU/PUBH 5590
 Strategic Planning for Health Care 3 credits

Electives:

PMNU/PUBH/MGMT 5401
 Rural Health Issues 3 credits
 PUBH/PMNU/MGMT 5525
 Health Services Delivery and Organizations 3 credits
 PUBH/PMNU/MGMT 5550
 Human Resource Management in Health Organizations 3 credits
 ACCT/PMNU/PUBH 5050
 Health Care Accounting and Finance 3 credits
 MKTG 5217 Health Care Marketing 3 credits
 PUBH 5400 Epidemiology 3 credits
 PUBH 5535 Health Policy, Politics and Analysis 3 credits
 PMNU 5530 Health Care Organizations and Law 3 credits
 PMNU 5017 Health Care Informatics 3 credits
 ECON 5317 Health Care Economics 3 credits
 Others as approved by the graduate faculty advisor.

History

Master of Arts in History

Department of History in
 the College of Arts and Sciences

P.O. Box 70672 423/439-4222
 www.etsu.edu/cas/history/hist.htm

Dale J. Schmitt, Graduate Coordinator

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 Box 70672
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Colin Baxter, Department Chair

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 (423) 439-6694
 e-mail: baxterc@etsu.edu

Faculty:

Leila al-Imad; Henry Antkiewicz; Colin Baxter; Douglas Burgess; Ronnie Day; Dorothy Drinkard-Hawkshawe; Emmett Essin; Stephen Fritz; James Odom; Melvin Page; Dale Royalty; Dale Schmitt; Andrew Slap; Elwood Watson; Margaret Ripley Wolfe.

The Department of History offers a graduate degree program leading to the master of arts.

Program Admission Requirements

1. A bachelor's degree from an accredited college.
2. Completion of a minimum of 27 semester credits of study in history.
3. At least a 3.0 grade point average in upper-level history courses.
4. Letters of recommendation from three undergraduate instructors.

Applicants who do not meet these requirements may be admitted to the graduate program on condition with departmental permission but may be required to complete prescribed undergraduate courses without graduate credit. After admission, each student shall consult with the graduate advisor of the department before beginning graduate study. The purpose of this consultation is to determine the academic needs of each student and to provide a program of study in history which will assist the graduate student to achieve individual aims in the School of Graduate Studies.

Academic Status Committee – A departmental committee will review the work of all graduate students at the end of each semester. Students whose work is judged conditional or unsatisfactory will be informed of their status and written reports and recommendations will be sent to members of the department and the graduate dean.

Admission to Candidacy – After satisfactorily completing 12 credits of approved coursework, the student shall apply to the Graduate School for admission to candidacy for the master's degree. Students who fail to apply for admission to candidacy after earning 12 credits of approved graduate credit in the department will be summoned before the academic status committee for special consultation.

Required Courses for all students:

HIST 5950 Introduction to Historical Research	3 credits
HIST 5940 Studies in Historiography	3 credits

Thesis Option – Students who plan to continue graduate study at the doctoral level should write theses. An advisory committee for the thesis will be appointed by the department chair and graduate advisor after the student selects a subject acceptable to the professor in which field the student wishes to work. In addition to the six credits of required courses, the student must complete HIST 5960, Thesis and additional 21 credits of electives, for a minimum total of 30 credits. Students will designate a primary and secondary area of study. The secondary field shall consist of not less than six credits and shall include a seminar in the field. The student taking the thesis option must also pass a final examination. At the discretion of the candidate’s committee, the final examination may be written, oral, or a combination of the two. It may be comprehensive and cover the thesis and coursework. The student may pass the examination; fail with no opportunity for reexamination; or fail with an opportunity for further study and reexamination by the committee on a specified date.

Course Work Option – All students selecting the coursework option will be required to complete an additional 33 credits of electives, in addition to the six credits of required courses, for a minimum total of 39 credits. A minimum of 30 credits must be in History, and no more than nine credits may be in courses in collateral fields approved by the graduate coordinator. Students must declare a primary and secondary field of study. The primary area must include a seminar in that field which will include the completion of a major research paper; the secondary field shall include a minimum of nine credits of study. The department chair and graduate coordinator will nominate an advisory committee for each student which will include two professors in the primary area and one in the secondary area. During the student’s final semester of coursework, each student will take a comprehensive written examination set by the committee over the primary and secondary areas of study which will be followed by a comprehensive oral examination. The student may pass the examination; fail with an opportunity for further study and review with reexamination by the committee; or fail with no opportunity for reexamination.

but not graduate degrees. M.A.L.S. students—except for those who choose the archives concentration (see below) — complete a common core, and then combine graduate courses from other academic departments with either a thesis or a special project to complete their programs of study.

Program Admission Requirements

A student applying to the Master of Arts in Liberal Studies program needs the following:

1. A baccalaureate degree in any field from a regionally accredited institution.
2. An undergraduate cumulative GPA of 2.5.
3. A successful admissions interview.

Degree Requirements

Students must complete 13 credits in a common core and 18-21 credits in related graduate courses. The thesis option requires 31 total credits, while the project option requires 34 total credits. The M.A.L.S. core consists of the following courses:

MALS 5000 Foundations in Liberal Studies	1 credit
MALS 5100 Introduction to Interdisciplinary Study	3 credits
MALS 5200* Seminar in Liberal Studies	3 credits
MALS 5400** Seminar in Interdisciplinary Research	3 credits
MALS 5950 Special Project in Liberal Studies or	
MALS 5960 Thesis	3 credits

* May be repeated when topic changes.

**May substitute a research methods course approved by the M.A.L.S. director.

Beyond the M.A.L.S. core, the program of study will come from the offerings of various departments at ETSU, with the following limitations: Elective courses must come from at least two different academic departments, and except in special circumstances, no more than one course may be taken from colleges other than Arts and Sciences, and Education. Only six credit hours of coursework may be taken from any one department in Arts and Sciences, and Education, without the approval of the M.A.L.S. director. Please note that a student may not take all elective courses from the College of Education. Students must meet all prerequisites for all courses.

Degree Requirements for the Concentration in Archival Studies

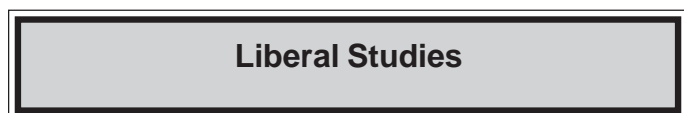
The concentration in archival studies within the M.A.L.S. program offers students a cross-disciplinary program of study consistent with recommendations of the Society of American Archivists. Students take core courses in liberal studies, as well as core courses in archival studies. Electives come from three categories: library science, management, and a subject field. A practicum at a local repository is an elective option.

M.A.L.S. Core for the Archival Studies Concentration

MALS 5000 Foundations in Liberal Studies	1 credit
MALS 5100 Introduction to Interdisciplinary Study	3 credits
MEDA 5800 Information Networks-Resource Sharing or	
MEDA 5850 Managing Content on the Internet	3 credits
MALS 5400* Seminar in Interdisciplinary Research	3 credits
MALS 5950 Special Project in Liberal Studies	
or	
MALS 5960 Thesis	3 credits

*May substitute a research methods course approved by the M.A.L.S. director.

Total M.A.L.S. Core 13 credits



Master of Arts in Liberal Studies

Division of Cross-Disciplinary Studies in the School of Continuing Studies

Marie Tedesco, Director for Master of Arts in Liberal Studies

916 West Maple
 Box 70659
 (423) 439-4223
 e-mail: tedescm@etsu.edu

Faculty:

Draws Graduate Faculty from throughout the university.

The Master of Arts in Liberal Studies is an interdisciplinary program that offers students from a variety of backgrounds an alternative graduate education. Firmly grounded in the values of interdisciplinary learning, the M.A. in Liberal Studies allows students to design an individualized program of study in the arts, humanities, sciences, social sciences, and related fields. Students may thus pursue study in such areas as women’s studies, Appalachian Studies, and African American studies, fields where graduate courses exist,

Archival Studies Concentration

AVST 5310	Archives History and Issues	3 credits
AVST 5311	Archives Theory and Practice	3 credits
AVST 5312	Archives Conservation	3 credits
MEDA 5750	Information and Records Management	3 credits
Total Archival Studies Hours		12 credits

Electives

Students will choose one of the following media courses:

MEDA 5000	History and Philosophy of Educational Media and Educational Technology	3 credits
MEDA 5720	Organization of Library Media	3 credits
Total Media Credit Hours		3 credits

Students will choose two courses (6 credits) from the following

Management courses:

MGMT 5010	Essentials of Management	3 credits
BADM 5160	Information Infrastructure	3 credits
PMGT 5100	Introduction to Public Administration	3 credits
MGMT 5020	Legal and Social Environment of Business	3 credits
PMGT 5200	Administrative Law and Practice	3 credits
Total Management Credit Hours		6 credits

Students will choose six credits from subject fields. The following are examples of courses that may be taken. Courses must be approved by the Archival Studies Coordinator.

HIST 5097	Emergence of the Modern United States	3 credits
HIST 5107	Recent United States-1933 to present	3 credits
CSCI 5250	Database Design	4 credits
SOAA 5357	Mass Communication and Popular Culture	3 credits
SOAA 5807	Modern Social Theory	3 credits
AVST 5570	Archives Practicum	3 credits
MALS 5900	Directed Studies	1-3 credits
Total Subject Field Credit Hours		6 credits

Total Program Credit Hours 40 credits

Graduate Certificate in Archival Studies

The Graduate Certificate in Archival Studies is an 18-credit-hour program designed for individuals who need, or want, archival training, but for whom the full degree program is not a necessity. Employees of a museum, historic site, or business may benefit from the certificate, as may history students who desire to complement their undergraduate or graduate degree. Individuals who must organize church or family records will also benefit from the certificate program. Admissions requirements for students pursuing the certificate are the same as those for students entering the M.A.L.S. program.

Required archival studies courses: Students must take the following three courses:

AVST 5310	Archives History and Issues	3 credits
AVST 5311	Archives Theory and Practice	3 credits
AVST 5312	Archives Conservation	3 credits
Total Archival Studies Courses		9 credits

Electives: students must take three courses from the following list:

PMGT 5100	Introduction to Public Administration	3 credits
MGMT 5010	Essentials of Management	3 credits
HIST 5950	Introduction to Historical Research	3 credits
SOAA 5627	Ethnographic Fieldwork	3 credits
MEDA 5720	Organization of Library Materials	3 credits
MEDA 5750	Information and Records Management	3 credits
Total		9 credits

Program Total 18 credits

Master of Arts in Teaching

Master of Arts in Teaching

**Department of Curriculum and Instruction
in the College of Education**

Dr. Rhona Cummings, Graduate Coordinator

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Dr. Karilee Freeberg, Department Chair

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Faculty:

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The Master of Arts in Teaching program is designed for students who have obtained a bachelor's degree in a field other than education and who are not eligible for teacher licensure. The M.A.T. program is planned to meet teacher licensure requirements at the graduate level in the state of Tennessee. Students have the option of entering the Elementary M.A.T. program that covers K-8 licensure or the Secondary M.A.T. program that covers 7-12 licensure in biology, chemistry, psychology, sociology, physics, earth science, economics, English, German, Spanish, French, geography, history, government, speech communication, mathematics, vocational home economics (5-12 licensure), and vocational industrial technology (5-12 licensure). Licensure at the K-12 level in physical education, art, theater, and health is also available.

Program Admission Requirements

Admission to the MAT program is a two-step process: students must be admitted to the MAT graduate program, and they must be admitted to the College of Education's Teacher Education Program. The first step is to seek admission to the graduate program. The applicant should submit official transcripts, three letters of reference, and official copies of all required test scores (GRE and/or ACT/SAT/PRAXIS I, as outlined below).

The final selection of MAT students is based on evaluation of the completed application package and a personal interview with the screening committee. The decision on admission to the Teacher Education Program occurs at this interview.

Upon admission to the MAT program, undergraduate transcripts will be analyzed to determine which content courses completed as a part of the undergraduate program will apply toward licensure, and which undergraduate courses may need to be taken during the MAT program. If candidates do not have a suitable undergraduate major in a licensure area, it is possible that additional undergraduate coursework will need to be taken in order to meet the licensure requirements set by the state. Since this is an initial licensure program, no previous undergraduate education coursework shall be credited toward this degree. Any student wishing to transfer in applicable graduate credit must follow graduate school regulations. However, no credit will be granted for graduate coursework taken more than five years ago.

To be admitted to the MAT program, a student must:

1. Have a baccalaureate degree from an accredited institution of higher learning.
2. Have an overall undergraduate grade point average of 3.0 on a 4.0 scale. If a candidate has an undergraduate overall grade point average between 2.5 and 3.0, he/she must take the GRE and obtain a minimum of 2400 points based on the following formula:
 - (1) The sum of the GRE aptitude scores (V+Q+A),
 - (2) GPA X 500, and
 - (3) The sum of (1) and (2).
 Students with a GPA of 3.0 or higher do not need to take the GRE.
3. Qualify for Admission to Teacher Education as established by the state of Tennessee
 - a. 2.5 undergraduate GPA (on a 4.0 scale) and in 30 hours of general education
 - b. have minimum scores on one of the following:
 - (1) 22 composite on the ACT (21 before 1989)
 - (2) 1020 on the SAT (920 before April 1, 1995)
 - (3) Praxis I
 - (a) Pre-Professional Skills Test (PPST) - 174-Reading; 173-Math; 173 Writing (if taken after 9/1/99)
 - (b) Computer-Based Academic Skills assessment (CBT) - Reading-321; Writing-319; Math 318 (if taken after 9/1/99)
4. Arrange for an admission interview. Applicants will be contacted for an admission interview after the program coordinator reviews completed applications forwarded from the Graduate School. Interviews are scheduled on an ongoing basis.

M.A.T. Program Components

For Initial Elementary (K-8) Endorsement ¹

Professional Core

EDFN	5405	The Profession of Teaching	1 credit
EDFN	5411	Exploring Schools	3 credits
EDFN	5410	Foundations of Education	3 credits
MEDA	5400	Integrating Technology in Teaching and Learning	3 credits
SPED	5500	Psych/Educational Problems of Exceptional Individuals	3 credits
EDFN	5950	Research Methods	3 credits
ECED	5517	Family-Communities & Schools	
		or	
SOAA	5087	The Family in Transition	3 credits
HDAL	5200	Advanced Educational Psychology	3 credits
		or	
HDAL/PSYC	5230	Advanced Developmental Psychology .	3 credits
		or	
HDAL/PSYC	5860	Theories of Learning	3 credits

Curriculum and Methodology

CUAI	5415	Communications: Block I (Reading, Child Literature & Related Language Arts)	6 credits
CUAI	5419	Communications Field Experience	1 credit
CUAI	5416	Reasoning: Block II (Math, Science, Social Studies)	6 credits
CUAI	5421	Reasoning Field Experience	1 credit
CUAI	5420	Elem. & Middle School Curriculum	1 credit
CUAI	5407	Integrating the Creative Arts, K-8	3 credits

Student Teaching

EDFN	5400	Current Issues in Educ. Seminar	3 credits
CUAI	5580	Enhanced Student Teaching	9 credits
Total credits			52

For Initial Secondary (7-12) Endorsement ¹

Professional Core:

EDFN	5405	The Profession of Teaching	1 credit
EDFN	5411	Exploring Schools	3 credits
EDFN	5410	Foundations of Education	3 credits
MEDA	5400	Integrating Technology in Teaching & Learning	3 credits
EDFN	5950	Research Methods	3 credits
HDAL	5200	Advanced Educational Psychology	3 credits
		or	
HDAL/PSYC	5230	Advanced Developmental Psychology	3 credits
		or	
PSYC	5860	Theories of Learning	3 credits
SPED	5500	Psychological/Educational Problems of Exceptional Individuals	3 credits

Curriculum and Methodology:

READ	5437	Reading in Middle & Secondary Schools	3 credits
CUAI	5417	Secondary School Curriculum & Methodology ..	3 credits
CUAI	5427	Secondary School Curriculum & Methodology Field Experience	1 credit
XXX XXX ³		Content Methods	3 credits

Student Teaching:

EDFN	5400	Current Issues in Education Seminar	3 credits
CUAI	5580	Enhanced Student Teaching	9 credits
Total credits			41 credits

Licensure areas in biology, chemistry, physics, psychology, sociology, government, economics, history, geography, earth science, speech communication, and vocational home economics require 3 Content Area Electives (for a total of at least 9 additional hours).

Total credits 50 credits

Licensure areas in French, German, Spanish, mathematics, English, and industrial vocational technology require 4 content area electives (for a total of at least 12 credit hours).

Total credits 53 credits

K-12 Licensure Majors in Theatre and Health ²
3 Content Area Electives

Total credits 50 credits

K-12 Licensure Major in Art ³
3 Content Area Electives

Total credits 53 credits

¹ This list does not include undergraduate or graduate courses that may be required for the state of Tennessee licensure.

² FACS 5727, Methods for Vocational Home Economics Education, FACS 5717 is a prerequisite; ENGL 5417 (Methods of Teaching English); ENTC 5787 (Methods of Teaching Vocational/Technology Education); HIST 5417 (Methods of Teaching History); LANG 5417 (Teaching of Modern Language); MATH 5417 (Teaching of Secondary Mathematics); SCED 5417 (Teaching Science in Secondary Schools); THEA 5417 (Teaching Theatre in Grades K-12) are the content area methods courses available.

³ K-12 licensure areas may need to take both elementary and secondary content methods courses, one of which will be included within the content area electives.

The initial Tennessee teacher's license will be issued only to those applicants who have completed a teacher preparation program in a Tennessee

higher education institution approved by the Tennessee State Board of Education for the preparation of teachers in the area of licensure sought.

If the initial license is not obtained following completion of the approved program, requirements in effect at the time of application must be satisfied. In all cases, current state licensure requirements must be met regardless of when the student enters the program.

A person who holds a Tennessee Teachers Professional License may add teaching area endorsements by completing teacher education programs after the original license has been issued. Such programs include the addition of a secondary endorsement to an elementary license or the addition of an elementary endorsement to a secondary license. A person who holds a Tennessee Teachers Professional License and wishes to add an endorsement in another teaching area should contact the licensure analyst, room 321, Warf-Pickel Hall.

Requirements are established by the Tennessee State Board of Education for renewal of any type of license it issues. Such requirements include teaching experience and credit earned after issuance of the license.

The Tennessee State Board of Education has adopted regulations regarding the issuance of an initial license or adding an endorsement to such license for persons having completed a program in an out-of-state institution. The procedure for such applicants is prescribed by the State Board of Education. Application for initial licensing based on such programs should be made directly to:

Tennessee Department of Education
Office of Teacher Licensing and Career Ladder Certification
5th Floor, Gateway Plaza
710 James Robertson Parkway
Nashville, TN 37243-0377
(615) 532-4888.

All applicants for a teaching license in Tennessee must submit satisfactory scores on the PRAXIS I to the Tennessee State Department of Education. Applicants should request that a copy of their test scores be sent to:

Licensure Analyst
College of Education

East Tennessee State University

Information about the test may be obtained from the Testing Center, room 428, Warf-Pickel Hall.

Mathematical Sciences

Master of Science in Mathematical Sciences

Department of Mathematics in the College of Arts and Sciences

Dr. Bob Gardner, Program Coordinator

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Faculty:

James W. Boland; Robert B. Gardner; Anant Godbole; Teresa Haynes; Don Hong; Janice Huang; Jr.; Abdul Jarrah; Lyndell M. Kerley; Debra Knisley; Jeff Knisley; Linda M. Lawson; Rick Norwood; George D. Poole; Robert Price; Edith Seier.

The Department of Mathematics offers a flexible program of study leading to the master of science (M.S.) degree in mathematical sciences. After completing a core program of 12 credits, the student may select coursework from a curriculum designed to emphasize classical mathematics, applied mathematics/computational mathematics actuarial mathematics, mathematical statistics, or mathematics education.

A student may pursue a program of study to include coursework in other mathematically oriented disciplines. For example, under the supervision of a graduate advisor, the student may design a program in which as much as half of the student's coursework is taken at the graduate level in computer science, management science, physics, technology, or some other mathematically oriented area.

Depending on the design of the program, opportunities for the student who successfully completes the M.S. degree are numerous. These programs may lead to careers in business, industry, government, or advanced teaching positions in secondary or higher education.

Program Admission Requirements

For admission to the program a student must have:

1. A bachelor's degree from an accredited college or university in mathematics or in a related area,
2. Submit general GRE scores,
3. Submit three letters of recommendation from individuals familiar with applicant's academic performance and likelihood of success in the School of Graduate Studies, and
4. Complete all of the admission requirements of the graduate school.

Incoming students lacking certain prerequisites may be required to make up these deficiencies. However, graduate credit will not be given for this coursework.

Each student is required to take a comprehensive examination in Calculus I-II and Linear Algebra. These exams are to be taken during the first semester of enrollment. In the event that a student does not achieve a grade of "B" or better on the exam, the student must make arrangements to do remedial work and retake the exam at the next scheduled time. The student may not register for MATH 5960 -Thesis until both exams have been passed by achieving a grade of B or better.

Minimum Degree Requirements

The student should meet with the graduate coordinator as soon as possible to determine career goals and a program of study. In consultation with the student, the graduate coordinator will assign a committee and chair. A minimum of 30 semester credits of acceptable work, including a thesis, is required for a degree. Of the 30 required credits no more than 9 credits can be from courses with numbers 5XX7.

Core Requirements – Every candidate must complete 5210 Real Analysis I and 5410 Modern Algebra I, plus at least two of the following: 5510 Complex Analysis I, 5610 Applied Mathematics I, 5710 Statistical Methods I, 5340 Graph Theory, 5350 Topology, 5850 Numerical Analysis. The student's program of study must contain at least one two-course sequence. The two-course sequence may contain a course from the above requirements. Examples of two-course sequences include:

MATH 5210-5220	Real Analysis I and II
MATH 5257-5267	Numerical Analysis and Numerical Linear Algebra
MATH 5340-5450	Graph Theory and Advanced Topics in Graph Theory

MATH 5410-5420	Modern Algebra I and II
MATH 5510-5520	Complex Analysis I and II
MATH 5810-5820	Operations Research I and II
MATH 5610-5620	Applied Mathematics I and II
MATH 5710-5720	Statistical Methods I and II
MATH 5850-5860	Numerical Analysis I and II

Courses – No later than the time when a student completes 12 credits of approved work, a committee will be appointed for the student. The committee and student together will decide which courses the student will take to complete the master of science degree. In addition to mathematics courses, students who are interested in applications of mathematics are encouraged to elect courses in computer science, management science, physics, technology, and other mathematically oriented fields. The final approval of the student's program rests with the graduate coordinator and the committee chair.

Thesis – The chair of the student's committee will ordinarily direct the research and preparation of the thesis. After selecting a topic, the student, in consultation with the student's committee, must prepare a tentative outline. This outline must be kept current during the preparation of the thesis and contained in the student's graduate folder.

Cooperative Program – The Department of Mathematics participates in the cooperative education program. All students are encouraged to participate in this program to gain practical experience in the applications of mathematics. A maximum of four credits of graduate credit may be earned toward graduation through this program.

Teacher Certification – A student interested in teacher certification should contact the College of Education about the M.A.T. or the Master of Education program.

Music

Department of Music in the College of Arts and Sciences

Mary Dave Blackman, Department Chair

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e-mail: blackman@etsu.edu
web page: www.etsu.edu/music

The Department of Music does not offer a graduate degree but has courses that can be taken for graduate credit. See Course Listing in this catalog.

Nursing

Master of Science in Nursing Doctor of Science in Nursing Health Care Management Graduate Certificate Graduate Certificate in Gerontology Post-Master's Certificate in Advanced Nursing Practice

Departments of Adult Nursing, Family/Community Nursing,
Professional Roles/Mental Health Nursing
in the College of Nursing

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Adult Nursing (ALNU)

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Family/Community Nursing (FCNU)

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Professional Roles/Mental Health Nursing (PMNU)

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Faculty:

Nancy M. Alley; Mary K. Anderson; Sally S. Blowers; Janne Dunham-Taylor; Joellen B. Edwards; Gail Gerding; Masoud Ghaffari; Lee Glenn; Susan M. Grover; Patricia A. Hayes; Linda J. Kerley; Marjorie S. King; Lois W. Lowry; Carol L. Macnee; Jo-Ann S. Marrs; Barbara A. May; Susan McCabe; Judy G. McCook; Deborah K. Poole; Stephanie I. Quillin; Priscilla W. Ramsey; Kathleen M. Rayman; Karen S. Reesman; Jennifer M. Schaller-Ayers; Rosalee J. Seymour; Renee C. Shell; Patricia L. Smith; Joy E. Wachs; Katherine M. Willock.

Master of Science in Nursing

The purpose of the Master of Science in Nursing (M.S.N.) degree program is to prepare nurses for advanced practice and entry into specialization. The advanced practice nurse works in interdisciplinary relationships and collaborative partnerships to meet population-based needs and provide high quality, cost-effective client care. The advanced practice nurse is accountable for influencing health policy, improving health care delivery, contributing to nursing science, and promoting the advancement of the nursing profession.

The focus of the graduate master's program is on the delivery of nursing care to rural and underserved clients across the life span. Curricula are available to prepare students as Nurse Administrators or Family, Adult, Psychiatric/Mental Health, or Gerontological Nurse Practitioners. Students who complete course requirements for the nurse practitioner specialties are qualified to take a national certification examination. The program is fully accredited by the National League for Nursing Accrediting Commission (NLNAC), Council of Baccalaureate and Higher Degree Programs. The NLNAC is an additional resource of information regarding tuition, fees and program length (61 Broadway-33rd Floor, New York City, NY 10006; 1-800-669-1656).

Program Admission Requirements

The criteria for admission to the Master of Science in Nursing degree program are as follows:

1. A Bachelor of Science in Nursing degree from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE);
2. A "B" average (3.00 on a 4.00 scale) in the nursing major;
3. Submission of Graduate Record Examination (GRE) scores; and
4. Licensure in the United States as a registered nurse and eligibility for licensure in Tennessee.

Documentation of the above requirements must be included with the application materials submitted to the School of Graduate Studies. Three (3) professional references should be included in the application packet or sent directly to the College of Nursing. All applications will be reviewed by the College of Nursing Graduate Admissions Committee. First preference for admission will be given to candidates who meet all criteria and file a completed application by February 1 (priority deadline).

Factors given consideration in the admission decision include the following: grade point average, level of GRE performance, professional work experience, demonstration of professional commitment through continuing education, professional honors and awards, writing ability, demonstrated interest in primary care in rural settings, and references. Applicants are strongly encouraged to address their accomplishments in these areas in their essay and in a vita/resume submitted directly to the College of Nursing. The Graduate Admissions Committee may exercise discretion in the admission of promising students who present rationale for their fitness for graduate study yet lack compliance with all criteria. A personal interview may be required. Applications will be considered until the class is filled.

Applicants may obtain a copy of College of Nursing policies pertaining to graduate students, including the substance abuse policy, clinical course requirements, and information on Core Performance Standards from the College of Nursing Office of Academic Programs and Student Services. After admission to the program, students will receive the College of Nursing Student Handbook and must sign forms indicating they have read the College of Nursing policies and agree to abide by them.

Before entrance into clinical courses, students must be licensed or authorized to practice professional nursing in Tennessee, demonstrate evidence of professional malpractice insurance in the amount of \$1,000,000/\$3,000,000 coverage (as a nurse practitioner student), have current CPR certification and a knowledge of universal precautions, and comply with the clinical requirements of the College of Nursing. A student may be asked to present evidence of physical or mental health at any time during the nursing program, and continuance in the program may be contingent upon this evidence. Students are provided with an approved preceptor for all clinical courses, as arranged by the college's Clinical Placement Coordinator. Students are required to provide their own transportation to clinical sites.

Progression Standards

Students in the graduate nursing program must meet the requirements of the School of Graduate Studies to remain in good standing. An overall grade point average (GPA) of 3.0 "B" or better must be maintained. In addition, a student must achieve a grade of "C" or better in every required course in the graduate nursing program. A student who receives less than a "C" grade in any required graduate course will be recommended for dismissal from the program. If dismissed, a student has the option to apply for reinstatement.

Degree Requirements

Students enrolled in the Adult, Gerontological, or Psychiatric/Mental Health Nurse Practitioner specialties must satisfactorily complete 46 credit hours of coursework. Students in the Family Nurse Practitioner specialty

must complete 48 credit hours. Students in the Nursing Administration specialty must complete 42 credit hours. A minimum of 36 credits of coursework must be in the nursing major at ETSU. Specific courses are required of students who plan to take a national certification examination. All students are required to pass a written comprehensive examination in the final semester of the program.

Courses are selected and approved in conjunction with the student's advisor. The courses are lodged in three departments - Adult Nursing (ALNU), Family/Community Nursing (FCNU), and Professional Roles/Mental Health Nursing (PMNU). In general, courses are offered once a year and coursework begins in the fall term. Courses within the Nursing Administration specialty are offered in an evening/weekend format.

All students in the master's degree nursing program are required to take the following core courses:

PMNU 5000	Conceptual Systems in Advanced Nursing Practice	2 credits
PMNU 5001	Nursing Research and Design	3 credits
PMNU 5002	Policy and Ethics in Advanced Nursing Practice or for Gerontology Nursing Practitioner Students	
PUBH 5607	Gerontology and Health or, for Nursing Administration students,	
PMNU/PUBH/MGMT 5505	Managing Health Care Org	3 credits
Total	.....	8 credits

Students enrolled in a nurse practitioner specialty curriculum will complete the Advanced Practice Nursing core and additional specialty nursing courses. The Advanced Practice Nursing core courses include the following:

ALNU 5009	Health Assessment Throughout the Life Span ...	3 credits
ALNU 5010	Health Assessment Throughout the Life Span: Practicum	3 credits
ALNU 5016	Pathophysiology for Nursing Diagnoses & Intervention	3 credits
ALNU 5018	Advanced Clinical Pharmacology	3 credits
PMNU 5004	Seminar in Professional Roles	1 credit
Total	.....	13 credits

Additional courses required in the Family Nurse Practitioner specialty include the following:

ALNU 5011	Life Span Assessment and Clinical Management: Young & Middle Adults	2 credits
ALNU 5012	Life Span Assessment and Clinical Management: Young & Middle Adults Practicum	3 credits
ALNU 5013	Life Span Assessment and Clinical Management: Older Adults	2 credits
ALNU 5014	Life Span Assessment and Clinical Management: Older Adults Practicum	3 credits
FCNU 5021	Life Span Assessment and Clinical Management: Women's Health	2 credits
FCNU 5022	Life Span Assessment and Clinical Management: Women's Health Practicum	3 credits
FCNU 5023	Life Span Assessment and Clinical Management: Children & Adolescents	2 credits
FCNU 5024	Life Span Assessment and Clinical Management: Children & Adolescents Practicum	3 credits
PMNU 5402	Behavioral Health Concepts for Adults	3 credits
FCNU 5950	Internship in Advanced Nursing Practice	4 credits

Required courses for students in the Adult Nurse Practitioner specialty include all courses required for the Family Nurse Practitioner specialty except the FCNU 5023/24 Life Span Assessment and Clinical Management: Children & Adolescents courses (5 credits). In lieu of these two courses, students in the Adult Nurse Practitioner specialty are required to take PMNU 5402 Behavioral Health Concepts for Adults (3 credits), ALNU

5021 Case Management (2 credits), and ALNU 5039 Pharmacology and Therapeutics for Older Adults (1 credit).

Required specialty courses for the Gerontological Nurse Practitioner students include:

ALNU 5013	Life Span Assessment and Clinical Management: Older Adults	2 credits
ALNU 5014	Life Span Assessment and Clinical Management: Older Adults Practicum	3 credits
ALNU 5031	Care of the Older Adult in Structured Settings	2 credits
ALNU 5032	Practicum in the Care of the Older Adult in Structured Settings	3 credits
PMNU 5402	Behavioral Health Concepts for Adults	3 credits
ALNU 5021	Case Management	2 credits
ALNU 5022	Case Management Practicum	3 credits
ALNU 5011	Life Span Assessment and Clinical Management: Young and Middle Adults	2 credits
ALNU 5038	Pharmacology and Therapeutics for Older Adults	1 credit
FCNU 5950	Internship in Advanced Nursing Practice	4 credits

Required specialty courses for Psychiatric/Mental Health Nurse Practitioner students include:

PMNU 5404	Advanced Psychiatric Nursing Care I	3 credits
PMNU 5405	Advanced Psychiatric Nursing Care I: Practicum	3 credits
ALNU 5021	Case Management	2 credits
PMNU 5303	Psychopharmacology	3 credits
PMNU 5408	Advanced Psychiatric Nursing Care II	2 credits
PMNU 5409	Advanced Psychiatric Nursing Care II: Practicum	2 credits
PMNU 5410	Interpersonal Treatment Modalities	3 credits
PMNU 5411	Interpersonal Treatment Modalities: Practicum ..	3 credits
PMNU 5950	Internship in Advanced Nursing Practice	4 credits

In addition to the M.S.N. core courses, students in the Nursing Administration specialty will complete the following courses:

PMNU/PUBH/MGMT 5550	Human Resource Management in Health Organizations	3 credits
PMNU/PUBH/MGMT 5590	Strategic Planning for Health Care	3 credits
PMNU/PUBH/ACCT 5050	Health Care Accounting and Finance	3 credits
PMNU 5520	Fiscal Management in Nursing Administration ..	3 credits
PMNU 5530	Health Organizations and Law	3 credits
PMNU 5017	Health Care Informatics	3 credits
PMNU 5510	Organizational Theory: Application to Nursing Administration	3 credits
ALNU 5021	Case Management	2 credits
PMNU 5560	Nursing Administration Practicum I	2 credits
PMNU 5570	Nursing Administration Practicum II	2 credits

An additional 6 credits are required of students in the Nursing Administration specialty to complete a thesis or take electives as approved by the student's advisor.

Post-Master's Certificate in Advanced Nursing Practice

Registered nurses who already hold a master's degree in nursing are eligible to apply to the post-master's certificate program and complete

courses which qualify them to take a national credentialing examination for certification as nurse practitioners. Prospective students must submit a completed application form to the School of Graduate Studies which includes official transcripts from all previous undergraduate and graduate coursework, a completed personal essay, a vitae/resume, and three (3) professional letters of recommendation. GRE reports are not required. Criteria for admission includes:

1. A master's degree in nursing from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE);
2. A "B" average (3.00 on a 4.00 scale) in the nursing major; and
3. Licensure in the United States as a registered nurse and eligibility for licensure in Tennessee.

Admission to the post-master's certificate program will be accomplished in the same manner as for the master's nursing degree program. A minimum of 19 credit hours is required for the certificate in Advanced Nursing Practice. Required courses for the Family, Adult, Psychiatric/Mental Health, or Gerontological Nurse Practitioner post-master's certificate include: ALNU 5009/10 Health Assessment Throughout the Life Span; PMNU 5004 Seminar in Professional Roles; two or more of the specialty didactic and practica course combinations; and FCNU 5950 Internship in Advanced Nursing Practice. In addition, all nurse practitioner students will be required to take ALNU 5016 Pathophysiology for Nursing Diagnoses and Interventions and ALNU 5018 Advanced Clinical Pharmacology, if not previously taken for academic credit. Adult and Gerontological Nurse Practitioner students will take ALNU 5038, Pharmacology and Therapeutics for Older Adults and Family Nurse Practitioner students will take PMNU 5402, Behavioral Health Concepts for Adults. An individualized program of study will be designed for each student admitted to the post-master's certificate program.

Doctor of Science in Nursing

The purpose of the Doctor of Science in Nursing (D.S.N.) degree program at ETSU is to prepare expert practitioners and nurse scientists who are capable of conducting applied clinical research that will improve health and provide leadership in the health care delivery system. Graduates of the program will meet an escalating need for nurse educators, practitioners, and clinical researchers in schools of nursing, health care agencies, and complex health care delivery systems across the state and nation. The D.S.N. program prepares students with advanced knowledge and skills in the science of nursing, with an emphasis on the application of knowledge to improve the health of rural and underserved population groups. The student is expected to demonstrate a sound knowledge of clinical research methods and techniques of data analysis, and acquire analytical and leadership skills for dealing with social, ethical, cultural, economic, and political issues related to nursing, health care, education, and research. The curriculum is designed to provide the student with coursework in the philosophy of science, ethics, statistical procedures, research methods, nursing science, and selected in-depth study in a selected cognate area. A dissertation on a topic of clinical interest is required.

Program Admission Requirements

Applicants seeking admission to the D.S.N. degree program at East Tennessee State University must fulfill all the requirements for admission to both the School of Graduate Studies and the College of Nursing. The School of Graduate Studies requires that all students submit the following materials: a completed application form with payment of a nonrefundable application fee; two official transcripts of all previous undergraduate and graduate work; and a written essay.

In addition, College of Nursing requirements for admission to the D.S.N. degree program include:

1. A master's degree* in nursing from a nationally accredited nursing program with a cumulative grade point average of at least 3.0 on a 4-point scale;
2. Submission of Graduate Record Exam (GRE) scores;
3. Licensure in the United States as a registered nurse and eligibility for licensure in the state of Tennessee;*
4. At least two years of full-time work experience (or the equivalent) in nursing as a registered nurse;
5. Three letters of recommendation, one from the applicant's current (or most recent) supervisor, one from a faculty member who worked directly with the applicant during previous graduate study, and one from an individual selected by the applicant;
6. Completion of an interview;
7. Completion of a writing sample on a selected topic at the time of interview;
8. A cover letter expressing the applicant's personal goals for doctoral study (unless clearly articulated in the written essay requested by the university); and
9. A resume or vita, as appropriate.

*Or equivalency for international students.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, additional documentation required of international students (if applicable), documentation of nursing licensure in the U.S., letters of recommendation, and resume/vita must be submitted to the School of Graduate Studies. The personal interview and time for preparing the writing sample will be scheduled by the College of Nursing's D.S.N. Admissions Committee.

Factors given consideration in the admission decision include: previous graduate grade point average, level of GRE performance, clarity of goals for doctoral study as stated in writing and during the interview, writing ability, professional work experience and achievements, professional honors and awards, interest in rural and underserved population groups, and quality of references/recommendations. The D.S.N. Admissions Committee may admit a promising applicant who has not met all the admission requirements on a conditional basis.

Advisory Committee

Upon admission to the doctoral program, the student will be assigned a faculty advisor who will work with the student in developing the initial program of study. Following completion of 9-12 semester credits of coursework, the student will establish a graduate advisory committee, of his/her choice, consisting of at least four eligible members. At least three members must be graduate nursing faculty, with a minimum of two from ETSU College of Nursing, and one committee member must be a graduate faculty member from another academic unit within the university. The chair of the committee must be an ETSU College of Nursing graduate faculty member. The committee will approve the student's program of study, advise the student throughout coursework and residency activities, administer and evaluate the qualifying examination, and facilitate the student's culminating research project and the preparation of the dissertation. Upon successful completion and defense of the dissertation and all other program requirements, the student's advisory committee will recommend the awarding of the Doctor of Science in Nursing degree.

Requirements for Completion of the Degree

Students must comply with all policies of the ETSU School of Graduate Studies regarding retention, progression, and graduation as described in the *Graduate Catalog*. To remain in good standing, a graduate student must maintain an overall grade point average of 3.0 "B" or better

on all graduate work attempted. According to university policy all graduate course grades earned at ETSU will be used in computing the grade point average. Students must also have a 3.0 "B" grade point average in the program of study to graduate. In addition, College of Nursing policy states that if a student fails to earn a grade of "C" or better in any required graduate course, the student is ineligible to continue in the program. If dismissed, a student has the option to apply for reinstatement. Before entrance into clinical courses, students must become licensed or authorized to practice professional nursing in Tennessee, demonstrate evidence of professional malpractice insurance in the amount of \$1,000,000/\$3,000,000 coverage, have current CPR certification and a knowledge of universal precautions, and comply with the clinical requirements of the College of Nursing. A student may be asked to present evidence of physical or mental health at any time during the nursing program, and continuance in the program may be contingent upon this evidence. Students are provided with an approved preceptor for all clinical courses.

Residency Requirements. The purpose of the residency requirement is to build a community of scholars. It provides doctoral students with significant time for sustained participation with peers and faculty members in scholarly and creative activities. A student in the D.S.N. program will fulfill the residency requirement by accomplishing selected professional activities such as scholarly writing, research, presentations, consulting, and grant writing, as specified in a residency plan developed in conjunction with the advisory committee. (Guidelines for Residency Activities will be provided.) The residency plan must be approved by the student's advisor and the Associate Dean of Academic Programs in the College of Nursing. Each student must complete the required approved residency activities and submit a residency portfolio as documentation no later than the semester in which the qualifying examination is taken.

Qualifying Examination. Prior to candidacy for the doctoral degree, a student must successfully complete a written and oral qualifying examination. The examination will be designed by the student's advisory committee to evaluate the student's ability to apply, synthesize, and evaluate knowledge gained throughout the program of study. The comprehensive examination is taken toward the end of the program, generally during the semester in which the final coursework is taken. The student's advisory committee will work with the student to schedule and prepare for the examination. Following the committee's review of the written examination, an oral examination is scheduled. During this examination, the student has the opportunity to clarify and amplify his/her responses on the written examination and answer additional questions posed by the student's advisory committee. If the student is not successful on the qualifying examination he/she will be provided with a remediation plan which will assist the student in preparing for re-examination. If the student is unsuccessful in only one area of the examination, that specific area of the examination may be re-examined within the same semester. Students who are unsuccessful on more than one portion of the exam must re-take the entire examination at a mutually agreed upon time, likely in the following semester. All students must be registered for a minimum of one semester hour of coursework in the semester in which they take or re-take the examination; if a student has no remaining coursework, he/she should register for at least one semester hour of ALNU/FCNU/PMNU 6960 Readings and Research. Failure on any portion of the second administration of the examination will result in the dismissal of the student from the program. Upon successful completion of the qualifying examination and submission of an application to candidacy, the student will be admitted to candidacy for the degree. Following admission to candidacy, the student may begin to register for dissertation credits.

Dissertation. Each doctoral candidate must complete a dissertation as a major requirement for the D.S.N. degree. The dissertation topic will be selected by the candidate and approved by the student's advisory committee. A dissertation proposal consisting of the first three chapters

of the dissertation will be completed and presented for approval to the student's advisory committee prior to beginning data collection for the research project. Once the dissertation research has been conducted, the results analyzed, and the report written and accepted by the advisory committee, an oral defense of the dissertation will be scheduled. The dissertation must be prepared in accordance with School of Graduate Studies guidelines and submitted to the Dean of the School of Graduate Studies for approval. General guidelines on the dissertation format and procedures to be followed in scheduling an oral defense are available in the School of Graduate Studies

Time Limit. The time limit for completion of the D.S.N. degree program by a student is seven years from the date of enrollment in the earliest course applied toward the degree.

Program of Study. The D.S.N. curriculum is composed of a minimum of 62 credit hours, including courses in foundations of scientific inquiry, research methods and data analysis, and nursing science; cognate courses, to complement the student's previous experiences and career goals; a guided elective; and dissertation hours. Cognate course selections are currently available to the D.S.N. student in the areas of Health Care Administration, Nursing Education, and Advanced Practice Nursing. A minimum of nine credits is required for each cognate. The guided elective may be applied to the cognate, as needed, in the student's individualized program of study. Opportunities for role development are provided within the nursing and cognate courses and through professional activities as specified within the students' residency plans. Students in the D.S.N. program may select courses only at the 5000, 6000, or 7000 levels; at least one-half of all courses within the doctoral student's program of study must be at the 6000/7000 levels. A summary of the curriculum follows:

Foundations of Scientific Inquiry:

PMNU 6100 Philosophy of Nursing Science	3 credits
PMNU 6110 Interdisciplinary Approaches to Bioethical Issues	3 credits
Introduction to Graduate Statistics course	3 credits

Research Methods and Data Analysis:

PMNU 6020 Advanced Data Analysis	4 credits
FCNU 6030 Quantitative Methods in Nursing Research	3 credits
PMNU 6040 Qualitative Methods in Nursing Research	3 credits
ALNU 6900 Dissertation Seminar	1 credit

Nursing Science:

PMNU 6000 Theoretical Foundations of Nursing Practice	3 credits
PMNU 6002 Health Policy Leadership	3 credits
ALNU 6010 Concept Development in Nursing Practice I	3 credits
ALNU 6012 Concept Development in Nursing Practice II	3 credits
FCNU 6014 Measurement of Clinical Outcomes	3 credits
FCNU 6016 Collaborative Approaches to Practice	3 credits

Cognate Course Selections: 9 credits

Guided Elective:

At least one nursing or non-nursing elective..... 3 credits

Dissertation:

ALNU/FCNU/PMNU 6960 Doctoral Dissertation 12 credits

Total Credit Hours **62 credits**

Cognate Course Options

Health Care Administration. Examples of courses a student may take within the Administration focus include:

PMNU/PUBH/MGMT 5505 Managing Health Care Organizations	3 credits
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PMNU/PUBH/MGMT 5550 Human Resource Management in Health Organizations	3 credits
PMNU/PUBH/ACCT 5050 Health Care Accounting and Finance	3 credits
PMNU/PUBH/MGMT 5590 Strategic Planning for Health Care	3 credits
PMNU 5401 Rural Health Issues	3 credits
PMNU 5530 Health Care Organizations and Law	3 credits
MKTG 5217 Health Care Marketing	3 credits

(Note: A student may be dually enrolled in the interdisciplinary Health Care Management Graduate Certificate Program and, upon successful completion of 18 credit hours of specified coursework, receive the graduate certificate.)

Nursing Education. Examples of courses a student may take within the Nursing Education focus include:

ELPA 6563 The Adult Learner	3 credits
ELPA 6872 Technology Applications for Educational Leaders	3 credits
ELPA 6030 Instructional Leadership	3 credits
ELPA 6954 Educational Program Evaluation	3 credits

Advanced Practice Nursing. Examples of courses a student may take with the Advanced Practice focus include:

PMNU 5401 Behavioral Health Concepts for Adults	3 credits
ALNU 5009/5010 Health Assessment Throughout the Lifespan – Theory & Practicum	6 credits
ALNU 5016 Pathophysiology for Nursing Diagnosis and Intervention	3 credits
ALNU 5013/14 Lifespan Assessment and Clinical Management: Older Adults – Theory and Practicum	5 credits
ALNU 5011/12 Lifespan Assessment and Clinical Management: Young & Middle Adults – Theory and Practicum	5 credits
ALNU 5021/22 Case Management – Theory and Practicum	5 credits
ALNU 5031/32 Care of the Older Adult in Structured Settings – Theory and Practicum	5 credits
FCNU 5023/24 Lifespan Assessment and Clinical Management: Children and Adolescents – Theory and Practicum	5 credits
FCNU 5021/22 Lifespan Assessment and Clinical Management: Women's Health – Theory and Practicum	5 credits
FCNU 5950/6950 Internship in Advanced Nursing Practice (180 clock hours)	4 credits

(Note: A student may obtain a post-master's certificate in Advanced Nursing Practice and qualify for certification as a Nurse Practitioner [Family, Adult, Psychiatric/Mental Health, or Gerontological] upon successful completion of 19 credits [minimum] of specified coursework, depending upon the student's academic background.)

Health Care Management Graduate Certificate

The Health Care Management Graduate Certificate Program is an interdisciplinary 18-credit-hour program of study designed to provide the learner with leadership and strategic management tools specifically for the health care environment. The focus of the program is to assist students to envision a broadened career perspective on the changing scope of health care delivery and management. Faculty from the colleges of Business and Technology, Nursing, and Public and Allied Health design and teach the courses within the program. For program details, please see the Health Care Management Graduate Certificate section of this catalog.

Graduate Certificate in Gerontology

The Gerontology Graduate Certificate Program is an interdisciplinary 22-credit-hour program of study designed to provide the learner with specific leadership and management tools for the health care environment. The focus of the program is to educate students who will become leaders in improving the quality of life for older individuals and their families in Tennessee, the nation, and the world. Faculty from the colleges of Public and Allied Health, Nursing, Business and Technology, Arts and Sciences, and Education develop and teach the courses within the program. For more detailed information, please see the Graduate Certificate in Gerontology section of this catalog.

Philosophy and Humanities

**Department of Philosophy and Humanities
in the College of Arts and Sciences**

Gail Stenstad, Department Chair

322B Rogers-Stout Hall
Box 70656, ETSU
(423) 439-4425
e-mail: stenstad@etsu.edu
web page: <http://www.etsu.edu/philos>

The Department of Philosophy and Humanities does not offer a graduate degree but has courses that can be taken for graduate credit. See Course Listing in this catalog.

Physical Education, Exercise, and Sport Sciences

**Master of Arts in
Physical Education**

**Department of Physical Education, Exercise, and
Sport Sciences in the College of Education**
Web Page: <http://coe.etsu.edu/departments/pexs>

**Dr. Tom Coates, Interim Department Chair
and Graduate Coordinator**

E305 Memorial Center
Box 70654
(423) 439-5261
e-mail: coates@etsu.edu

Faculty:

Tom Coates; Diego DeHoyos; Diana Mozen; Max Shute.

The Department of Physical Education, Exercise, and Sport Sciences offers the M.A. in Physical Education with concentrations in Physical Education, K-12; Exercise Physiology and Performance; and Sport Management. These concentrations are designed to prepare students as master physical education teachers or for positions in rehabilitation programs; corporate and community wellness programs; athletic administration; sport management; and advanced graduate studies.

Program Admission Requirements

The following are required for admission into the M.A. in Physical Education graduate program:

1. An undergraduate degree in physical education, exercise science, sport management, or closely related field.
 2. GRE scores.
 3. A 2.7 cumulative undergraduate grade point average (GPA) on a 4.0 scale.
 4. Three letters of recommendation.
- Applicants with weak credentials in one area (e.g., a low score on the GRE) will be considered for conditional admission if they have strong credentials in another area (e.g., a 3.5 GPA or very strong recommendations).

Degree Requirements

All graduate students in the M.A. in Physical Education graduate program are required to take the following core courses:

Core Requirements

SALM 5230 Legal Issues in Physical Education and Sport	3 credits
PEXS 5430 Administration of Physical Education/Athletics	3 credits
EDFN 5950 Methods of Research	3 credits
Total Core	9 credits

In addition to the nine-hour core listed above, requirements for each concentration are listed below. Other program electives can be arranged in consultation with the academic advisor. Students who do not choose to complete the thesis option will be required to complete written and oral exams as their culminating experience.

Physical Education K-12 Concentration

Concentration Requirements

PEXS 5040 Motor Control & Learning	3 credits
PEXS 5110 Curriculum Development	3 credits
PEXS 5460 Inclusion in Physical Education	3 credits
PEXS 5470 Systematic Observation and Analysis of Instruction	3 credits
Total Concentration	12 credits

Thesis Option

PEXS 5960 Thesis	3 credits
Electives	12 credits

Non-Thesis Option

Electives	15 credits
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Electives

PEXS 5032 Motor Development	3 credits
SALM 5107 Alpine Tower Leadership	3 credits
SALM 5127 Rocky Mountain Experience	3 credits
SALM 5137 Wilderness Ed. Assoc. Stewardship Program	3 credits
SALM 5215 Sport in Society	3 credits
SALM 5225 Planning and Operating Facilities	3 credits
SALM 5220 Issues and Trends in Sport Management	3 credits
SALM 5240 Risk Management and Assessment in Sports	3 credits

Total **36 credits**

Exercise Physiology and Performance Concentration

Concentration Requirements

PEXS 5610 Muscle Metabolism and Hormonal Control	3 credits
PEXS 5620 Cardiovascular and Respiratory Physiology	3 credits
PEXS 5520 Instrumentation	3 credits
or	

PEXS 5540 Ex. Test & Prescription	3 credits
PEXS 5800 Internship in Fitness/Exercise Physiology	3 credits
SALM 5243 Sport Marketing	3 credits
Total Concentration	15 credits

Thesis Option

PEXS 5960 Thesis	3 credits
Electives	9 credits

Non-Thesis Option

Electives	12 credits
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Electives

PEXS 5467 Nutrition and Exercise Related Aspects to Metabolic Diseases	3 credits
PEXS 5977 Exercise Management for Persons with Chronic Diseases and Disabilities	3 credits
PEXS 5655 Sports Nutrition	3 credits
PEXS 5656 Sport Conditioning and Training	3 credits
SALM 5245 The Financing of Sport	3 credits
SALM 5240 Risk Management and Assessment in Sports	3 credits
MDED 5040 Biometry and Biomedical Computing	3 credits
BIOL 5647 Molecular Biology	3 credits
BIOL 5147/5157 Biochemistry of Macromolecules/Lab	5 credits
BIOL 5167/5177 Biochemistry of Metabolism/Lab	5 credits
MICR 6300 Immunology	2 credits
PHAR 5000/6000 Medical Pharmacology	7 credits
PHAR 6340 Cardiovascular Pharmacology	4 credits
ANCB 5050/6050 Cell Biology	4 credits
FACS 5427 Diet and Disease I	3 credits
PUBH 5607 Gerontology and Health	3 credits
PUBH 5937 Stress Management	3 credits

Total **36 credits**

Sport Management Concentration**Concentration Requirements**

SALM 5245 The Financing of Sport	3 credits
SALM 5243 Sport Marketing	3 credits
SALM 5215 Sport in Society	3 credits
SALM 5200 Issues in Sport Management	3 credits
SALM 5232 Sport Communication and Media Relations	3 credits
SALM 5250 Internship in Sport Management	6 credits
Total Concentration	21 credits

Thesis Option

PEXS 5960 Thesis	3 credits
Electives	3 credits

Non-Thesis Option

Electives	6 credits
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Electives

SALM 5107 Alpine Tower Leadership	3 credits
SALM 5225 Planning/Operating Facilities	3 credits
SALM 5240 Risk Management and Assessment in Sports	3 credits
PEXS 5655 Sports Nutrition	3 credits
PEXS 5656 Sport Conditioning and Training	3 credits
ACCT 5000 Essentials of Accounting	3 credits
FNCE 5000 Essentials of Finance	3 credits
MKTG 5010 Essentials of Marketing	3 credits

Total **36 credits**

Physical Therapy

Doctor of Physical Therapy

**Department of Physical Therapy in
the College of Public and Allied Health**

Susan Epps, Advisor/Selective Admissions**Coordinator**

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Box 70624
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Duane A. Williams, Department Chair/Program**Director**

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Faculty:

Robert C. Barnhart, Ute Breese, Mary Jo Davenport, Peter C. Panus,
Duane A. Williams.

Support Faculty:

Thomas E. Kwasigroch; Ronald H. Baisden.

Physical therapy, which is the care and services provided by or under the direction and supervision of a physical therapist, includes: 1) examining and evaluating patients with health-related conditions, impairments, functional limitations, and disability in order to determine a diagnosis, prognosis, and intervention; 2) alleviating impairments and functional limitations by designing, implementing, and modifying therapeutic interventions; 3) preventing injury, impairments, functional limitations, and disability, including promoting and maintaining fitness, health, and quality of life in all age populations; and 4) engaging in consultation, education, and research. (Adopted by the American Physical Therapy Association (APTA) Board of Directors in March 1995 (BOD 03-95-24-64)).

The Department of Physical Therapy (PHYT) offers the Doctor of Physical Therapy degree. Students may apply for entry-level (non-licensed individuals) or advanced standing (for licensed physical therapists) in the D.P.T. program. The program is designed to integrate classroom and clinical learning experiences to prepare its graduates to carry out effectively the expanding responsibilities of physical therapists as health care providers practicing in evaluative, preventive, rehabilitation and acute care settings, and in educational and research environments. Students who enter the program will have strong but diverse academic backgrounds reflecting their abilities to think independently, evaluate critically, and exercise good judgement. Additionally, students in the program should display the personal qualities of flexibility, responsibility, and sensitivity to others.

The mission of the Department of Physical Therapy is to integrate teaching, research, and service to prepare selected students as general practitioners of physical therapy; to foster faculty and student scholarship to add to the knowledge of physical therapy practice; and to provide faculty consultation and professional services to the community at large to enhance the practice and profession of physical therapy.

The academic and clinical goals of the department are to prepare physical therapy general practitioners to:

1. examine/screen human structure and function, both normal and abnormal, across the life span, within the scope of physical therapy practice;
2. integrate, bridge, and cross-match the theories, concepts, and principles of the basic and psychosocial sciences to current and future clinical practice in order to justify their evaluation and treatment management decisions;
3. utilize information from the literature, from their evaluations, from other health care professionals, and from their experience, to develop efficient, safe, and cost-effective physical therapy treatment management programs;
4. communicate effectively, with or without technology assistance, with patients, health care professionals, clients, family members, payers, policy makers, and the community at large;
5. be sensitive to the health care environment in which they work in order to analyze, interpret, and respond to the major factors influencing health care;
6. function in a professional manner as a member and representative of the health care team;
7. have a basic understanding of administration/ management skills as related to the practice/ business of physical therapy;
8. function as educators in the academic, clinical, and community settings as related to physical therapy; and
9. be critical thinkers able to analyze old and new concepts, principles, research and clinical findings, technologies, and outcomes; to relate them to personal and professional values and standards; and to integrate and apply them to the practice of physical therapy as appropriate.

Entry Level D.P.T. Program Admission Requirements

The physical therapy program admits students by a selective admissions process to begin matriculation in the spring semester only. All application material must be completed and received by the School of Graduate Studies by July 1. The traditional entry student will have a continuous enrollment requirement for completion of three years of full-time study in a fixed, prescribed curriculum. Graduate-level PHYT courses may not be taken prior to admission to the physical therapy program.

Early Decision Program: Applicants who submit complete applications between January 1 and March 1 of each year may be eligible for the Early Decision Program. Qualified eligible applicants will be interviewed and notified of the Admissions Committee's decision regarding acceptance by May 1. Applicants who meet the Early Decision application deadline but who are not accepted for Early Decision will be reconsidered for acceptance with the pool of applications received by the standard deadline of July 1.

Students seeking admission to the professional Doctor of Physical Therapy degree program (entry-level) must meet the requirements established by the School of Graduate Studies. They must also meet the following minimum program requirements:

1. Attainment of a bachelor's degree from a regionally accredited institution (Southern Association of Colleges and Schools or equivalent);
2. Have an overall GPA of 2.7 (on a 4.0 scale) in all undergraduate coursework;
3. Have a 3.0 GPA (on a 4.0 scale) in the prerequisite courses;
4. Completion of prerequisite courses; no grade in a prerequisite course may be less than a "C" (2.0 on a 4.0 scale)
5. Submission of the Graduate Record Exam (GRE) scores;
6. Three letters of recommendation with at least one from a licensed physical therapist);

7. A positive evaluation after an interview with the physical therapy Admissions Committee.

Prerequisite courses for admission consideration include:

Statistics	3 credits
General Biology with lab	8 credits
General Chemistry with lab	8 credits
General Physics with lab	8 credits
Human Anatomy*	3-4 credits
Human Physiology w/ lab*	4 credits
Exercise Physiology	3-4 credits
Psychology	6 credits

**No combined topical courses will be accepted as prerequisite courses.*

Observation/clinical experience hours: There is no specific number of clinical hours required, however, each applicant is expected to have thoroughly investigated the scope and profession of physical therapy. Applicants' understanding of the profession will be considered in their interview.

All students accepted for admission into the graduate program in Physical Therapy must meet the following requirements prior to enrollment in clinical practicum:

1. Medical terminology competency by either (a) having taken a medical terminology course prior to beginning the PT curriculum or (b) successfully completing a medical terminology competency examination before the end of the first semester;
2. A physical examination verifying that the student is in good health and free from communicable disease;
3. Tuberculosis screening and other immunizations required by the clinical sites;
4. Current Cardiopulmonary Resuscitation (CPR) and Basic First Aid certification;
5. Health/Accident insurance coverage;
6. Professional student liability insurance coverage;
7. The ability to perform, either unaided or with reasonable accommodation, the following essential functions for clinical practicum in physical therapy:
 - a. Critical thinking ability sufficient for clinical judgment.
 - b. Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds.
 - c. Communication abilities sufficient for interaction with others in verbal and written form.
 - d. Physical abilities sufficient to move from room to room and maneuver in small spaces.
 - e. Gross and fine motor abilities sufficient to provide safe and effective physical therapy care.
 - f. Auditory abilities sufficient to monitor and assess health needs.
 - g. Visual ability sufficient for observation and assessment necessary in physical therapy care.
 - h. Tactile ability sufficient for physical assessment and treatment.
 - i. Physical ability to assist moving, transferring, and ambulating patients who have physical impairment or dysfunction.

Retention Requirements

Students in the Physical Therapy program must meet the retention standards as set forth for graduate students by the School of Graduate Studies and by the Promotion/Retention Committee of the Department of Physical Therapy. Grades shall be issued based on the 4.0 scale as set forth in the Graduate Catalog.

A physical therapy student will be considered deficient for any course grade less than a "C" (2.0), or when his/her overall grade average per semester or for all semesters completed in the program is less than a "B" (3.0).

Traditional entry students will matriculate through a fixed, prescribed curriculum in a three-year, full-time program. Additional retention requirements include:

1. Successful completion of a comprehensive written exam at the end of the first five semesters before being allowed to proceed to semesters 6-9 and the clinical internships.
2. Successful completion of 22 semester hours in clinical internships (semesters 6 and 7) that integrate all previous didactic and clinical coursework.

The Physical Therapy Promotion and Retention Committee will meet at a minimum at the end of each semester to determine whether each student should be promoted to the next semester, be put on probation, or be required to remediate any deficiencies before he/she proceeds to the next semester of study. Promotion will be determined by the student's didactic performance, clinical performance, and professional behavior.

Degree Requirements

The Doctor of Physical Therapy is a non-dissertation professional degree requiring successful completion of the designated credits, including the culminating experiences. Students will complete 84 credit hours of major field courses and 43 credit hours of clinical education experiences for a total of 127 credit hours.

Curriculum for Entry-level D.P.T.

PHYT 6101	Functional Human Anatomy	6 credits
PHYT 6102	Pathophysiology	4 credits
PHYT 6103	Biomechanics	3 credits
PHYT 6111	PT Basic Skills I	2 credits
PHYT 6151	Professional Issues I	1 credit
PHYT 6212	PT Basic Skills II	2 credits
PHYT 6213	PT Basic Skills III	4 credits
PHYT 6221	Musculoskeletal I	4 credits
PHYT 6261	Intro. to Research Process	1 credit
PHYT 6271	Clinical Practicum I	2 credits
PHYT 6304	Neuroscience	6 credits
PHYT 6314	PT Basic Skills IV	2 credits
PHYT 6315	Electrotherapeutics	3 credits
PHYT 6322	Musculoskeletal II	4 credits
PHYT 6331	Neurotherapeutic Prin. I	4 credits
PHYT 6405	Pharmacology I for PT	2 credits
PHYT 6416	Wound and Burn Care	2 credits
PHYT 6432	Neurotherapeutics II (peds)	3 credits
PHYT 6433	Neurotherapeutics III (geri)	2 credits
PHYT 6452	Clinical Correlates I	1 credit
PHYT 6462	Scientific Inquiry for PTs	1 credit
PHYT 6472	Clinical Practicum II	2 credits
PHYT 6523	Prosthetics and Orthotics	3 credits
PHYT 6541	Cardiopulmonary Rehabilitation	2 credits
PHYT 6553	Professional Issues II	2 credits
PHYT 6554	Clinical Correlates II	1 credit
PHYT 6573	Clinical Practicum III	2 credit
PHYT 6663	Human Research for PT	1 credit
PHYT 6674	Internship I	12 credits
PHYT 6681	Administration and Management	2 credits
PHYT 7706	Pharmacology II for PT	1 credit
PHYT 7717	Current Trends in PT	1 credit
PHYT 7764	Case Study in PT	1 credit
PHYT 7775	Internship II	10 credits
PHYT 7807	Imaging Studies for PT	2 credits

PHYT 7855	Lifespan Development for PT	3 credits
PHYT 7856	Health and Wellness Strategies in PT	3 credits
PHYT 7857	Differential Diagnosis for PT	2 credits
PHYT 7882	Teaching and Learning for PT	1 credit
PHYT 7883	PT Management and Leadership	2 credits
PHYT 7976	Internship III	15 credits
TOTAL	.....	127 credits

The culminating experiences consist of the following:

1. Successful completion of Clinical Internship III (15 credit hours)
2. Passing the Case Study oral presentation in the final semester. (The presentation is based on the written case study prepared for PHYT 7764 - Case Study in PT.)

Advanced Standing D.P.T. Program Admission Requirements

Students who aspire to advanced standing in the professional Doctor of Physical Therapy degree program must meet the requirements for admission as established by the School of Graduate Studies. They must also meet the following program requirements:

1. Graduation from a Commission on Accreditation in Physical Therapy Education (CAPTE) accredited physical therapy program;
2. Must have an active state physical therapy license with no current sanctions;
3. Submission of the Physical Therapy Department Application Form for Advanced Standing;
4. Three letters of recommendation (one from current or most recent supervisor, two from licensed physical therapists);
5. Submission of Graduate Record Exam (GRE) scores if the GPA in previous coursework for the physical therapy degree is less than 3.0 on a 4.0 scale.

Retention Requirements

Students in the Physical Therapy program must meet the retention standards as set forth for graduate students by the School of Graduate Studies and by the Promotion and Retention Committee of the Department of Physical Therapy. Grades shall be issued based on the 4.0 scale as set forth in the Graduate Catalog.

A physical therapy student will be considered deficient for any course grade less than a "C" (2.0), or when his/her overall grade point average per semester or for all semesters completed in the program is less than a "B" (3.0).

A student with advanced standing may progress through the curriculum on a full- or part-time basis as desired. A student with advanced standing must be continuously enrolled in the D.P.T. program unless he/she has received approval for a break in enrollment from the Physical Therapy Promotion and Retention Committee. A student with advanced standing must also maintain a current state physical therapy license and be eligible for licensure in Tennessee.

The Physical Therapy Promotion and Retention Committee will meet at a minimum at the end of each semester to determine whether each student should be promoted to the next semester, be put on probation, or be required to remediate any deficiencies before he/she proceeds to the next semester of study. Promotion will be determined by the student's didactic performance, clinical performance, and professional behavior.

Degree Requirements

The Doctor of Physical Therapy is a non-dissertation degree requiring successful completion of the designated credits, including the culminating experiences. Course requirements for advanced standing students will be evaluated on an individual basis, according to the level and amount of their prior coursework. The faculty will determine the advanced standing student's individual program of study. Students admitted with advanced standing who have documentation of six hundred (600) hours or more

of direct patient clinical practice experience within two years prior to enrollment in the D.P.T. program may opt to take 9 credit hours of advanced coursework in lieu of 9 credit hours of the Clinical Internship III.

The culminating experiences consist of the following:

1. Successful completion of Clinical Internship III (6-15 credit hours).
2. Passing the Case Study oral presentation in the final semester. (The presentation is based on the written case study prepared for PHYT 7764 - Case Study in PT.)

Graduates of ETSU's B.S.P.T. program who are admitted with advanced standing will take the following courses:

PHYT 6261. Introduction to the Research Process	1 credit
PHYT 6452. Clinical Correlates I	1 credit
PHYT 6462. Scientific Inquiry for PT	1 credit
PHYT 6554. Clinical Correlates II	1 credit
PHYT 6663. Human Research in PT	1 credit
PHYT 7706. Pharmacology II for PT	1 credit
PHYT 7717. Current Trends in PT	1 credit
PHYT 7764. Case Study in PT	1 credit
PHYT 7882. Teaching and Learning for PT	1 credit
PHYT 7855. Lifespan Development for PT	3 credits
PHYT 7883. PT Management and Leadership	2 credits
PHYT 7856. Health and Wellness in PT	3 credits
PHYT 7857. Differential Diagnosis for PT	2 credits
PHYT 7807. Imaging Studies for PT	2 credits
PHYT 7976. Internship III	6-15 credits

Graduates of ETSU's M.P.T. program who are admitted with advanced standing will take the following courses:

PHYT 6663. Human Research in PT	1 credit
PHYT 7706. Pharmacology II for PT	1 credit
PHYT 7717. Current Trends in PT	1 credit
PHYT 7764. Case Study in PT	1 credit
PHYT 7882. Teaching and Learning for PT	1 credit
PHYT 7855. Lifespan Development for PT	3 credits
PHYT 7883. PT Management and Leadership	2 credits
PHYT 7856. Health and Wellness in PT	3 credits
PHYT 7857. Differential Diagnosis for PT	3 credits
PHYT 7807. Imaging Studies for PT	2 credits
PHYT 7976. Internship III	6-15 credits

Graduates of physical therapy programs other than ETSU's who are admitted with advanced standing will take the following courses at a minimum. Additional coursework required will be determined on an individual basis following a review of previous coursework.

PHYT 6663. Human Research for PT	1 credit
PHYT 7706. Pharmacology II for PT	1 credit
PHYT 7717. Current Trends in PT	1 credit
PHYT 7764. Case Study in PT	1 credit
PHYT 7882. Teaching and Learning for PT	1 credit
PHYT 7855. Lifespan Development for PT	3 credits
PHYT 7883. PT Management and Leadership	2 credits
PHYT 7856. Health and Wellness in PT	3 credits
PHYT 7857. Differential Diagnosis for PT	3 credits
PHYT 7807. Imaging Studies for PT	2 credits
PHYT 7976. Internship III	6-15 credits

Physics

Department of Physics, Astronomy, and Geology in the College of Arts and Sciences

David Close, Department Chair

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(423) 439-4231
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The Department of Physics, Astronomy, and Geology does not offer a graduate degree but has courses that can be taken for graduate credit. See Course Listing in this catalog.

Psychology

Master of Arts in Psychology

Department of Psychology in the College of Arts and Sciences

Jon B. Ellis, Clinical Concentration Coordinator

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Otto Zinser, General Concentration Coordinator

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e-mail: zinsero@etsu.edu

Wallace E. Dixon, Jr., Department Chair and Graduate Coordinator

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Faculty:

Roger Bailey; Russ Brown; Peggy Cantrell; Wallace E. Dixon, Jr.;
Jon Ellis; Joel Hillhouse; David Marx; Otto Zinser.

The Department of Psychology offers a master of arts degree with options in general and clinical psychology. The general psychology option provides students with advanced training in the field of psychology leading to careers in diverse areas of research and teaching in psychology. The clinical psychology option provides students with master's level training in preparation for doctoral work in clinical psychology.

Master of Arts Degree

CLINICAL PSYCHOLOGY CONCENTRATION

Admission Requirements – The following are required for admission to the program:

1. Scores of 500 on the verbal, quantitative, and subject (psychology) portions of the Graduate Record Examination.
2. A 3.0 overall grade point average and a 3.0 average in psychology.
3. A major in psychology.
4. At least one course in statistics and one laboratory course in psychology.
5. Three letters of recommendation, at least two from former college instructors.
6. Personal statement of goals.

Applicants with weak credentials in one area (for example, a low score in quantitative methods on the GRE), will be considered for admission if they have strong credentials in another area (for example, a 3.50 grade point average or very strong recommendations). All materials must be received by March 1st for fall admission with financial aid. Candidates submitting applications thereafter are less likely to receive financial aid. Applicants should also refer to the Graduate School policies on application deadlines as outlined in this catalog. The clinical and general options normally admit students only for the fall semester. All applications are reviewed by a departmental admissions committee. A telephone or personal interview may be required.

The Content Breadth Requirements for master's level students in the psychology graduate program include:

1. Learning and Cognition - which, if not met at the undergraduate level, can be met by taking EITHER Perception (PSYC 5317) or a Topical Seminar (PSYC 56xx) with content relative to learning or cognition.
2. Individual Differences - which, if not met at the undergraduate level, can be met by taking EITHER Social Psychology Topical Seminar (PSYC 5620), Personality Theories (PSYC 5220), Psychopathology (PSYC 5825), Introduction to Psychological Testing (PSYC 5817), or Clinical Topical Seminar (PSYC 5660).
3. Biological Bases of Behavior - which, if not met at the undergraduate level, can be met by taking EITHER Advanced Behavioral Neuroscience (PSYC 5707), Psychopharmacology (PSYC 5407), or Topical Seminar in Behavioral Neuroscience (PSYC 5640).
4. Developmental Changes in Behavior - which, if not met at the undergraduate level, can be met by taking EITHER Advanced Developmental Psychology (PSYC 5230 or HDAL 5230), Child Psychopathology (PSYC 5607), or Topical Seminar in Developmental Psychology (PSYC 5610).

GENERAL PSYCHOLOGY CONCENTRATION

Requirements-All students electing general psychology must complete the following core courses:

PSYC 5210 Statistical Methods	3 credits
PSYC 5410 Correlation and Multiple Regression	3 credits
PSYC 56xx Topical Seminar Series	12 credits
PSYC 5800 Teaching in the Psychological Sciences	3 credits
PSYC 5900 Independent Study: Research	3 credits
PSYC 5950 Methods of Research	3 credits
PSYC 5960 Thesis	6 credits
Approved Elective *	3 credits
Total	36 credits

*The approved elective will be chosen based on the student's interests and with the guidance of the student's advisor.

Requirements – It is the primary objective of the Clinical Psychology concentration to prepare students to pursue the doctorate in Clinical Psychology. However, some students may decide to end their graduate work at the master's level. The curriculum is designed to afford some flexibility in that regard. With the guidance of their faculty advisor, students will choose elective courses, including the thesis for those applying for doctoral work following the master's degree, or two semesters of practicum for those terminating at the master's level. In either case, students electing the clinical psychology option must complete the following core courses for a total of 33 semester credits:

PSYC 5210 Statistical Methods	3 credits
PSYC 5220 Personality Theories	3 credits
PSYC 5410 Correlation and Multiple Regression	3 credits
HDAL 5430 Legal and Ethical Issues	3 credits
PSYC 5830 Psychological Assessment I: Adults	3 credits
PSYC 5850 Psychological Assessment II: Children	3 credits
PSYC 5825 Psychopathology	3 credits
PSYC 5870 Interviewing Techniques in Clinical Psychology ...	3 credits
PSYC 5950 Methods of Research	3 credits
Approved Electives	6 credits
Core Total	33 credits

Students planning to pursue doctoral-level training with the goal of obtaining licensure as a psychologist must also complete the following 6 hours of study:

PSYC 5960 Thesis	6 credits
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Students who, during their course of study, decide to end their education at the master's level may elect to take the following coursework in lieu of thesis work:

PSYC 5910 Practicum in Mental Health I	3 credits
PSYC 5911 Practicum in Mental Health II	3 credits
Total	39 credits

Public Health

Master of Public Health

**Department of Public Health in
the College of Public and Allied Health**

Dr. Joanne Walker Flowers, Department Chair

149 Lamb Hall
Box 70674
(423) 439-4332
e-mail: shields@etsu.edu

Dr. Beth Hogan, Graduate Coordinator

149 Lamb Hall
Box 70674
(423) 439-4427
e-mail: hogan@etsu.edu

Faculty:

James Anderson; Wilsie S. Bishop; Michael Dunn; James E. Florence; Joanne Walker Flowers; Bruce A. Goodrow; Beth Hogan; Mary Ann Littleton; Bonnie S. Marrs(Emerita); Chul-Young Roh; J. Michael Stoots; Tiejian Wu.

There are two areas of concentration in the master of public health program - community health and public health administration. In community health, individuals are prepared to plan and conduct health assessments and evaluations using collaborative organizational and community partnership skills. The public health administration concentration prepares individuals for a wide array of administrative positions in private and governmental health agencies. Students receive training in personnel management, marketing, finance, and health policy.

Program Admission Requirements

Admission to the graduate program in public health is based upon scholarship, health-related work experience, letters of recommendation, and evidence of potential. 1) Students must have a minimum undergraduate GPA of 2.75; 2) complete the Graduate Record Examination prior to the end of the first semester; and 3) at least two years of full-time public health-related work experience is preferred.

Please contact the department at (423) 439-4332 for additional information.

Core Course Requirements:

PUBH 5020	Philosophy of Public Health	1 credit
ENVH 5100	Environmental Health Practice I	3 credits
PUBH 5200	Social & Behavioral Foundations of Public Health	3 credits
PUBH 5310	Principles of Biostatistics	3 credits
PUBH 5400	Principles of Epidemiology	3 credits
PUBH 5500	Health Services Administration	3 credits
Total Core Credits		16 credits

Community Health Required Courses:

PUBH 5110	Assessment of Individual & Community Health	3 credits
PUBH 5120	Techniques of Research & Evaluation	3 credits
PUBH 5130	Planning & Implementation of Community Health Programs	3 credits
PUBH 5377	Health Communication	3 credits
PUBH 5150	Consulting in Organizations & Communities	3 credits
PUBH 5210	Professional Development for Public Health Practice	2 credits
PUBH 5850	Public Health Program Field Experience or	
PUBH 5960	Thesis	6 credits
Total Community Required Credits		23 credits

Electives 6 credits

**Total Credits for Community Health
Concentration 45 credits**

Health Services Administration Required Courses

PUBH 5505	Managing Health Care Organizations	3 credits
PUBH 5525	Health Services Organization & Delivery	3 credits
PUBH 5535	Health Policy, Politics & Analysis	3 credits
PUBH 5550	Human Resource Management in Health Organizations	3 credits
PUBH 5850	Public Health Program Field Experience	6 credits
or		
*PUBH 5950	Research Seminar	3 credits
and		
*PUBH 5960	Thesis	3 credits
or		
**PUBH 5989	Cooperative Education	6 credits

*Students electing to complete a thesis in the public health administration option must also enroll in PUBH 5950 Research Seminar.

**May substitute in part or whole for PUBH 5850 Public Health Program Field Experience.

Total Public Health Administration

Required Credits	15-18 credits
Electives	6 - 9 credits

**Total Credits for Public Health Administration
Concentration 40-43 credits**

Electives are selected in consultation with the student's advisory committee. They may be selected from any graduate program (e.g. Environmental Health, Nursing, Business, Social and Behavioral Sciences) as appropriate to the student's professional goals.

**Health Care Management Graduate
Certificate**

**Colleges of Business and Technology, Nursing, and
Public and Allied Health**

Cynthia Taylor, Administrative Coordinator

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College of Business and Technology

Linda Garceau, Dean

Phillip Miller, Chair of Management and Marketing Department

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College of Nursing

Patricia L. Smith, Interim Dean

Janne Dunham-Taylor, Chair of Adult Nursing Department

312 Lamb Hall
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College of Public and Allied Health

Wilsie S. Bishop, Dean

Joanne Walker Flowers, Chair of Public Health Department

149 Lamb Hall
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The Health Care Management Graduate Certificate Program is an interdisciplinary 18-credit-hour program of study designed to provide the learner with leadership and strategic management tools specifically for the health care environment. The focus of the program is to assist students to envision a broadened career perspective on the changing scope of health care delivery and management. Faculty from the colleges of Business and Technology, Nursing, and Public and Allied Health design and teach the courses within the program. For program details please see the section on Health Care Management Graduate Certificate in this catalog.

Reading

Master of Arts in Reading

Dr. E. Jane Melendez, Graduate Coordinator,

Reading Education
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(423) 439-7910
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Dr. Joseph Sobol, Graduate Coordinator,

Storytelling
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Box 70684
(423) 439-7683
e-mail: sobol@etsu.edu

Department of Curriculum and Instruction in the College of Education

Dr. Karilee Freeberg, Department Chair

401A Warf-Pickel Hall
Box 70684
(423) 439-7595
e-mail: freebere@etsu.edu

Faculty:

Martha Collins; Ed Dwyer; Rosalind Gann; Flora Joy; Jane Melendez;
Leslie Perry; Elizabeth Ralston; Joseph Sobol; John Taylor.

Reading Education Concentration

The graduate program in reading education is designed to provide the necessary educational experiences for persons who are either preparing to or are already involved in working toward enhancing the reading, writing, and oral language competencies of children and adults. Graduate students are prepared to assume leadership roles in reading education by serving as special reading teachers, clinicians, diagnosticians, program coordinators, and reading supervisors.

The graduate program meets standards of excellence for reading programs of the International Reading Association. Graduate program faculty and students work extensively in area schools to provide active practicum experiences.

Admission – Each applicant for admission to a master's degree program must have earned a bachelor's degree in an appropriate academic discipline from a regionally accredited college or university before the application will be considered. Each candidate for admission must meet all general university requirements for admission to the School of Graduate Studies and departmental requirements as published elsewhere.

Degree Requirements – Graduate majors in reading education and storytelling will be permitted to elect the thesis option (comprised of coursework and required formal thesis) with a minimum requirement of 30 credit hours, or the course option (completely comprised of coursework, no formal thesis required) with a minimum requirement of 36 credit hours. All reading education majors will be required to complete READ 5027, 5120, 5170, 5190, 5210, 5231, 5241, and EDFN 5950. Additional credits will be earned from other reading and reading-related courses.

Program Components – M.A. Degree in Reading Reading Education Concentration

Core:

EDFN 5950	Methods of Research	3 credits
READ 5190	Linguistics of Reading	3 credits
READ 5241	Practicum	3 credits
Total for Core		9 credits

Concentration:

READ 5027	Diagnostic and Remedial Procedures in Reading	3 credits
READ 5120	Teaching Reading	3 credits
READ 5170	Materials for Reading and Language Arts	3 credits
READ 5210	Psychology of Reading	3 credits
READ 5231	Advanced Diagnostic Procedures	3 credits
Total for Concentration		15 credits

Thesis option:

READ 5960	Thesis	3-6 credits
Guided electives		0-3 credits
Total:		30 credits

Non-Thesis option:

Guided electives		12 credits
Total:		36 credits

Tennessee Reading Specialist, PreK-12: The East Tennessee State University College of Education Master of Arts in Reading Education enables individuals to acquire the knowledge and skills stipulated by the Tennessee Licensure Standards for Reading Specialist, PreK-12. Most students who participate in our Reading M.A. program are practicing licensed teachers, and those aspiring to specialist licensure must have at least three years successful classroom experience as such. Graduate students, working toward qualification as licensed reading specialists in Tennessee, will be advised to take a specific set of courses that fulfills both the East Tennessee State University requirements for the Reading MA and the requirements outlined by the Tennessee Standards for Licensure as Reading Specialist, PreK-12.

Storytelling Concentration

The purpose of the graduate program in Storytelling is to provide necessary educational experiences for those who are preparing themselves to use Storytelling as a part of their endeavors. Teachers and librarians from the field of education and a widely varied group from outside education that could include, but not be limited to, professional storytellers, ministers, physicians, attorneys, and any who wish to use Storytelling as a major part of their vocations or avocations would be included. Elements of the program are offered through activities of the National Storytelling Network (NSN) and the International Storytelling Center (ISC).

Admission Requirements – Requirements are the same as for the reading education concentration.

Degree Requirements – Graduate majors in Storytelling may choose the thesis option with a minimum of 30 credit hours, or the coursework option with a minimum of 36 credit hours. All Storytelling majors shall be required to complete READ 5147, 5190, 5890, 5230, 5241 and EDFN 5950 (or approved substitution). Additional credits should be earned from the list of approved electives or other courses approved by the student's advisor.

**Program Components – M.A. Degree in Reading
Storytelling Concentration**

Core:

READ 5190	Linguistics of Reading	3 credits
READ 5241	Practicum	3 credits
EDFN 5950	Methods of Research	3 credits
	Total for Core	9 credits

Concentration:

READ 5147	Basic Storytelling	3 credits
READ 5890	Historical & Psychological Foundations of Storytelling	3 credits
READ 5230	Advanced Storytelling	3 credits
	Total for Concentration	9 credits

Thesis option:

READ 5960	Thesis	3-6 credits
Electives	.....	6-9 credits
	Total	30 credits

Non-Thesis option:

Guided electives	.....	18 credits
	Total	36 credits

Master of Arts degree requirements to establish writing competencies of students are:

- (1) the production of a research prospectus including review of literature through EDFN 5950;
- (2) the production of a story performance (to be recorded on videotape for departmental files); and
- (3) the successful completion of oral and/or written comprehensive examinations.

Secondary Education

Master of Education in Secondary Education

**Department of Curriculum and Instruction in
the College of Education**

**Dr. Karilee K. Freeberg, Department Chair, Interim
Graduate Coordinator**

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Box 70684
(423) 439-7595
e-mail: freeber@etsu.edu

Faculty:

Rhona Cummings; H. Lee Daniels; Karilee Freeberg; Rosalind Gann; Aimee Govett; Elizabeth Jane Melendez; Elizabeth Ralston; Jack Rhoton.

The major purpose of this degree is to improve the quality of teaching at the secondary level by broadening the background of teachers in the various areas of study and preparing teachers as action researchers. The departments in which courses are normally taken are: Biology, Chemistry, Computer Science, English, Foreign Languages, Geography, Health Education, History, Mathematics, Psychology, Sociology, and Theater.

Students who wish to complete a concentration in one of the disciplines normally taught at the secondary school level, as part of a master of education degree, must already hold a professional teaching

certificate. If the applicant does not have an acceptable background but desires to complete a major, these deficiencies may be removed by completing courses for undergraduate credit.

Students planning to complete this program must complete 22 credits of professional development courses and 15 credits in an appropriate discipline, representing the student's greatest interest. The minimum number of semester credits required is 37. Professional development courses may be completed concurrently with content area courses. Elective courses and content area courses taken prior to completing the professional development courses should be held to a minimum. After 12 credits of professional development courses have been completed, the student should complete candidacy and committee papers with the approval of the initial advisor. The student's program should be planned with the advisor prior to selecting courses. The students completing the M.Ed. Secondary Education program are required to present a Professional Level Teaching Portfolio as part of the oral examination.

Program Admission Requirements

Students seeking admission to graduate programs in the Department of Curriculum and Instruction must first meet general requirements of the Graduate School. In addition, the following specific admission criteria apply:

1. A candidate who has an undergraduate GPA of 3.0 or above on a 4.0 scale for all work completed is eligible for admission. The candidate must also submit three letters of recommendation.
2. A candidate who has an undergraduate GPA of less than 3.0 on a 4.0 scale may be granted admission by either of the following two procedures:
 - a. Obtaining a minimum of 2400 points based on the following formula:
 - (1) The sum of the GRE aptitude scores (V+Q+A),
 - (2) GPA X 500, and
 - (3) The sum of (1) and (2).
 Scores on the GRE Analytical Writing section (AW) will be substituted for the old Analytical (A) scores using a scaled transfer.
 - b. Participating in an interview with the appropriate admission committee. The candidate will be responsible for providing the admission committee with information for consideration in admission decisions. Factors to be considered include teaching experience; scores on standardized tests; GPA during the entire undergraduate experience, during the last two years of undergraduate school, and in the major; performance in graduate courses taken; recommendations of supervisors and colleagues; quality of undergraduate school(s) attended; oral communication skills; and skill in writing, which will be determined in part by the candidate's extemporaneous writing during the interview process.

Program Components M.Ed. Degree in Secondary Education (except Classroom Technology Concentration)

I. Professional Development Courses

EDFN 5010	Interdisciplinary Seminar	1 credit
EDFN 5050	Social and Political Influences on Schools	3 credits
EDFN 5950	Methods of Research	3 credits
CUAI 5199	Teaching in a Diverse Society	3 credits
CUAI 5200	Middle School/Junior High Curriculum	3 credits
	or	
CUAI 5220	Secondary School Curriculum	3 credits
MEDA 5400	Integrating Technology in Teaching and Learning	3 credits

Three additional semester credits from courses listed below:

CUAI	5210	Curriculum Development	3 credits
MEDA	5700	Instructional Role of Educational Media and Educational Technology	3 credits
CUAI	5910	Assessment Techniques in the Classroom	3 credits
EDFN	5000	History and Philosophy of Education	3 credits
MEDA	5507	Principles of Instructional Design And Production	3 credits
Total			19 credits

II. Content Specialization

15 credits from areas normally taught in the secondary schools (grades 7-12)

Total 15 credits

III. Content Elective

Chosen with prior approval from the student's advisory chair-may be from content area

Total 3 credits

Classroom Technology Concentration

The Classroom Technology Concentration provides secondary teachers with the skills necessary to implement, with a greater degree of efficiency, the effective use of technology in the classroom. The classroom technology concentration prepares candidates to keep abreast of changes in educational technology and its impact on education. In addition, candidates will be equipped to utilize and integrate a broad range of educational technology applications to enhance student learning.

Students planning to complete the classroom technology concentration must complete 16 credit hours of professional development courses (as listed above); 12 credit hours in educational technology courses; and 9 credit hours of electives. The 9 credit hours from electives may be completed from educational technology courses or in one of the disciplines normally taught at the secondary level.

Classroom Technology Concentration

I. Professional Development Courses (see listing above)

MEDA	5700	Instructional Role of Educational Media and Educational Technology	3 credits
MEDA	5507	Principles of Instructional Design and Production	3 credits

II. Content Specialization

MEDA	5850	Organizing and Managing Content On the Internet	3 credits
MEDA	5957	Topics in Media	3 credits

III. Content Electives 9 credits
(Content electives may be selected from media technology or from the disciplines normally taught at the secondary level.)

Total 37 credits

The courses listed under the content specialization have been recommended by the respective departments as appropriate courses for secondary education. See the appropriate content section of this catalog or contact your advisor for specifics. However, substitutions may be recommended based on the unique background of individual candidates. Students may work out a specific program of study in consultation with an advisor. However, students should be aware that many courses in the content specialization and professional core have prerequisites.

See Curriculum and Instruction (CUAI), Educational Foundations (EDFN), and Media (MEDA) sections of this catalog for these course descriptions.

Social Work

**Department of Social Work in
the College of Arts and Sciences**

Helene K. Halvorson, Program Director

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(423) 439-6006
e-mail: halvorso@etsu.edu

Paul Baggett, Department Chair

207 Hillrise Hall
Box 70645
(423) 439-6006
e-mail: baggett@etsu.edu

Faculty:

James Ayers; Paul Baggett; Jane Maas-Brady; J.P. Burnham; Bruce Dalton; Barbara Grissett; Kay Kuczynski; Patty Wahlberg.

The Master of Social Work program is in the process of applying for candidacy with the Council on Social Work Education (CSWE).

Applicants with bachelor's degrees from accredited universities or colleges may apply for admission to the traditional, two-year master's program. This program is comprised of two levels. The first-year foundation curriculum will focus on preparing students with a generalist social work perspective. The second-year curriculum will focus on preparing students for autonomous clinical practice.

Applicants who have a bachelor of social work (B.S.W.), within the last five years, from a program accredited by CWSE may apply for the advanced standing program, which can be completed in approximately 12 months for full-time students.

Full-time and part-time enrollment is available for both programs.

Program Admission Requirements

1. Bachelor's degree from an accredited college or university;
2. A grade point average (GPA) of 3.0 or higher on a 4.0 scale for the last 60 semester credit hours or 90 quarter credit hours, with an overall cumulative GPA of 2.75;
3. A liberal arts base consisting of
 - a. 6 credit hours of English composition
 - b. 6 credit hours of math and natural sciences (one of which must be human biology)
 - c. 6 credit hours of humanities
 - d. 18 credit hours of social and/or behavioral sciences courses taken from a combination of psychology, sociology, anthropology, economics, history, political science and government;
4. Three letters of reference that address applicant's abilities and potential for graduate education and professional social work practice;
5. A resume that includes personal data, educational experience, work/volunteer experience, special skills, attributes, and professional affiliations and recognition; and
6. An autobiographic statement.
7. No academic credit will be granted for work experience.

Advanced Standing Status

In addition to the above requirements, students graduating from a CSWE accredited Bachelor of Social Work program within the last five years, may apply for Advanced Standing status.

Additionally, all applicants will be screened for evidence of the following intellectual and personal qualities compatible with social work roles and functions:

- a. Sound interpersonal skills that would support respectful relationships and affirmation of people from diverse backgrounds.
- b. Strong motivation for a career in social work and suitability for the profession.
- c. Personal integrity that would demonstrate potential for meeting the objectives of the program and for adhering to the Code of Ethics established by the National Association of Social Workers.
- d. Critical thinking skills and skills in oral and written communication consistent with graduate-level standards.

RETENTION AND GRADUATION REQUIREMENTS

The Master of Social Work degree will be conferred upon those students who meet the following requirements:

- ◆ Satisfactory completion of all retention and graduation requirements as outlined in the ETSU Graduate Catalog.
- ◆ Satisfactory completion of no less than 63 semester hours for those admitted to the Traditional Entry program and 34 semester hours for those admitted to the Advanced Standing program.
- ◆ Completion of all required courses with a cumulative GPA of 3.0 and at least a B in all practice and field coursework and on the final research project. Satisfactory completion of the foundation coursework is required before advancing to second-year coursework and practicum. Students may repeat a course for which the final grade is B- or lower only one time in order to complete graduation requirements. However, the second grade does not replace the first; all grades are computed in the GPA.
- ◆ Satisfactory completion of the program’s culminating experience, the final field practicum with a grade of B or better, which is the integrating activity of the program and includes a comprehensive evaluation of the student’s performance.
- ◆ Upon completion of the foundation, students will be evaluated for continuation in the program based upon coursework, fieldwork, and suitability for the profession.

First-Year Foundation Curriculum for Traditional Entry Concentration (32 credit hours)

Fall Semester		
SOWK 5101	Multicultural Practice	3 Credits
SOWK 5102	Human Behavior in the Social Environment I	3 Credits
SOWK 5103	Social Work Practice Foundations I	3 Credits
SOWK 5104	Social Welfare Policy and Programs	3 Credits
SOWK 5106	Field Practicum I	4 Credits
		16 Credits

Spring Semester		
SOWK 5202	Human Behavior in the Social Environment II ..	3 Credits
SOWK 5203	Social Work Practice Foundations II	3 Credits
SOWK 5xxx	Elective	3 Credits
SOWK 5205	Social Work Research I	3 Credits
SOWK 5206	Field Practicum II	4 Credits
		16 Credits

Summer Bridge Course for Advanced Standing Concentration

SOWK 5208	Advanced Standing Bridge Course	3 credits
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Second-Year Curriculum for both Traditional Entry and Advanced Standing Concentrations

Fall Semester		
SOWK 5303	Advanced Practice/Individuals	3 Credits
SOWK 5305	Social Work Research II	3 Credits
SOWK 5313	Advanced Practice/Families	3 Credits
SOWK 5430	Psychopathology	3 Credits
SOWK 5306	Advanced Field Practicum I	4 Credits
		16 Credits
Spring Semester		
SOWK 5323	Advanced Practice /Groups	3 Credits
SOWK 5403	Administrative Practice in Human Services Organizations	3 Credits
SOWK 5405	Social Work Research III	3 Credits
SOWK 5406	Advanced Field Practicum II	6 Credits

Sociology and Anthropology

Master of Arts in Sociology

Department of Sociology and Anthropology in the College of Arts and Sciences

www.etsu.edu/cas/sociology/social.htm

Dr. Leslie McCallister, Graduate Coordinator

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 e-mail: mccallis@etsu.edu

Dr. Martha Copp, Department Chair

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Faculty:

Scott Beck; Richard Blaustein; Cynthia Burnley; Anthony P. Cavender; Martha Copp; Judith Hammond; Wendell Hester; Paul Kamolnick; Robert Leger; Leslie McCallister.

The Department of Sociology and Anthropology offers two M.A. degree options. The general sociology option is primarily for students intending to continue graduate training leading to the Ph.D.; the applied sociology option is oriented toward students interested in gaining competency in applied social research skills relevant to a variety of private and public sector settings. Graduates of the department have obtained jobs such as federal probation officers, director of residential treatment centers, research analyst, superintendent of a juvenile correction facility, as well as a variety of positions with departments of human services in Tennessee and neighboring states. Graduates have continued their studies in sociology by pursuing the Ph.D. at institutions such as Duke, Stanford, Kentucky, Indiana, Kansas, and Tennessee. For more information contact: Leslie McCallister, Graduate Coordinator; phone (423) 439-4998; fax (423) 439-5313; e-mail: mccallis@etsu.edu

Program Admission Requirements

1. Submit scores on the verbal, quantitative and analytical sections of the Graduate Record Exam (GRE). Scores of at least 400 on each of the sections preferred.
2. A 3.0 overall undergraduate grade point average.
3. An undergraduate major or minor in sociology. In lieu of this requirement, students who majored and minored in related subjects (social work, psychology, criminal justice) and who complete at least three courses in sociology may be admitted under the condition that they enroll in and complete, with at least a grade of B, two upper-level undergraduate courses.
4. Three letters of recommendation.

Applicants who are weak in one area may still be admitted if they have high credentials in other areas. All application materials should be on file in the Graduate Office six weeks before the beginning of the term in which the student plans to begin study.

Thesis Option Requirements

All students selecting the thesis option must complete a minimum of 30 semester credits, 21 of which must be in sociology.

SOAA 5110 Contemporary Social Theory	3 credits
SOAA 5210 Sociological Research	3 credits
SOAA 5960 Thesis	3-6 credits
Electives	18-21 credits
Total	30 credits

Students may take no more than 9 credits outside the department. Those students who are deemed to have had insufficient coursework in sociology at the undergraduate level may be required to take between one and three "5xx7" courses before enrolling in the required courses. Students, in consultation with the graduate coordinator, shall select an advisory committee for their thesis. The formation of the thesis committee should be done by the end of the second semester of study. Working closely with the chair of their thesis committee, students are to prepare and present to the graduate faculty of the department a prospectus for their thesis, which must be approved before they can proceed with their thesis research. A written comprehensive exam is required to successfully complete the degree program.

Non-Thesis Option

All students selecting the non-thesis option must complete a minimum of 36 semester credits, 27 of which must be in sociology.

SOAA 5110 Contemporary Social Theory	3 credits
SOAA 5210 Sociological Research	3 credits
SOAA 5820 Skills in Applied Sociology & Anthropology	3 credits
SOAA 5320 Program Evaluation	3 credits
SOAA 5850 Supervised Internship	6 credits
SOAA 5870 Internship Placement Report	3 credits
and one of the following:	
SOAA 5627 Ethnographic Fieldwork Techniques	3 credits
or	
SOAA 5444 Applied Data Analysis for Social Sciences	3 credits
Electives	12 credits
Total	36 credits

Any exceptions to these "core" courses must be approved by the graduate coordinator and the student's advisory committee chair. As with the thesis option, those students deemed to have had insufficient

coursework in sociology at the undergraduate level may be required to enroll in one to three "5xx7" courses.

The special feature of the applied sociology concentration is a supervised internship. Students, in conjunction with the internship coordinator and their advisory committee, will select an appropriate placement in an agency or organization in which they will work, under supervision, for a total of 280-300 hours. Students will receive six credits by enrolling in Supervised Internship (5850). The culmination of the applied sociology concentration is an analytical report based on the student's internship experience and knowledge gained from previous coursework, for which they receive three credits by taking Internship Placement Report (5870). Students interested in the applied sociology concentration should indicate so in their first semester of study and a screening interview will be conducted by the second semester.

As with the thesis option, a written comprehensive exam is required to successfully complete the degree program.

Special Education

Master of Education in Special Education

**Department of Human Development and Learning in
the College of Education**

Martha Coutinho, Graduate Coordinator

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Faculty:

Rebecca Burleson; Martha Coutinho; James Fox; Lori Marks; Sekhar Pindiprolu; Clarissa Willis.

The area of Special Education (SPED) offers a master of education degree (M.Ed.) for the advanced preparation of personnel to serve children, youth, and adults who have disabilities.

The program offers three concentrations:

Special Education Concentration

This area of emphasis is designed to prepare individuals to teach students with mild to severe disabilities, including learning disabilities, physical disabilities, behavioral disorders, and moderate to severe mental retardation. Emphasis is placed on teaching students with a variety of needs within the context of the least restrictive environment, developing collaboration and consultation skills, incorporating assistive technology, and using curriculum-based assessment methods. The special education concentration prepares candidates for Tennessee teaching license in modified and comprehension special education.

Early Childhood Special Education Concentration

This area of emphasis is designed to prepare individuals to teach young children (birth – 5 years old) with disabilities and to work effectively with their families. This concentration prepares candidates for Tennessee license in early childhood special education.

Advanced Practitioner Concentration

This area of emphasis is designed to prepare individuals who are not seeking special education licensure, but who are interested in obtaining an advanced degree in special education. Coursework in this option is based upon the interests and needs of each student.

Program Admission Requirements

Admission Standards

Applicants who meet the following criteria may be admitted unconditionally. Those who do not meet the criteria may be admitted conditionally, with deficiencies to be met as stipulated by the program faculty.

1. Completion of all requirements for admission to the School of Graduate Studies.
2. Completion of the aptitude section of the Graduate Record Examination with a minimum verbal score of 450 or 900 combined score on the two sections.
3. Minimum undergraduate GPA of 3.0.
4. Nonteaching personnel in a field ancillary to special education may pursue a SPED master's degree without the prerequisite teaching credentials.

Initial Licensure in Special Education

Those persons seeking initial licensure in special education who have a baccalaureate degree but are not currently eligible for teacher licensure will follow the program of study designed to meet the state of Tennessee's teacher licensure requirements for the special education concentration (SPED) or early childhood special education concentration (ECSE). Students admitted to the graduate program must successfully complete all applicable tests including the Praxis I and Praxis II. Deficiency coursework may be required, and may be taken at either the graduate or undergraduate level. Students who have a Tennessee state teaching license and who are entering the graduate program are admitted to the College of Education as part of their admission to the School of Graduate Studies. Deficiency coursework may not be applied toward requirements for completion of a master's degree. All students pursuing an initial licensure will student teach for 15 weeks.

**Major Field Core Courses
(Required for all master's degree students)**

SPED 5001 Critical Issues in Special Education	3 credits
SPED 5445 Incorporating Assistive Technology into the Curriculum	3 credits
SPED 5487 Collaboration with Families, Agencies, and Schools	3 credits
EDFN 5950 Research Method	3 credits
EDFN 5010 Seminar in Education	1 credit

In addition to Graduate Core Courses, students must demonstrate successful completion of CPR and first-aid training.

Concentration Requirements

Special Education Concentration

SPED 5700 Instructional Techniques for the Inclusive Classroom	3 credits
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SPED 5750 Transition to Adult Life and the World of Work	3 credits
SPED 5757 Curriculum-Based Assessment	3 credits
SPED 5497 Curriculum in Special Education	3 credits
SPED 5825 Curriculum Preclinical Experience	1 credit
SPED 5365 Integrating Functional Skills into the Curriculum	3 credits
SPED 5725 Management Strategies for Severe Behaviors	3 credits
SPED 5410 Preclinical Experience: Behavior Management	1 credit
SPED 5850 Student Teaching in Special Education	6 credits

M.Ed. Minimum Total 39 credits

Early Childhood Special Education Concentration

SPED 5437 Medical Aspects of Individuals of Individuals with Disabilities	3 credits
SPED 5010 Introduction to Young Special Needs Children and their Families	3 credits
SPED 5030 Intervention with Developmentally Delayed Preschoolers	4 credits
SPED 5040 Intervention with Developmentally Delayed Infants and Toddlers	4 credits
SPED 5050 Assessment of Young Children with Disabilities	3 credits
SPED 5060 Professional Seminar in Early Intervention	1 credit
HDAL 5331 Infancy	3 credits
HDAL 5210 Advanced Child Development	3 credits
SPED 5850 Student Teaching in Special Education	6 credits

M.Ed. Minimum Total 43 credits

Advanced Practitioner Concentration

This concentration is primarily designed for persons interested in in-depth studies leading to a master's degree in special education. It does not prepare candidates for initial licensure in special education.

Special Education electives or approved coursework	21 credits
SPED 5560 Advanced Practicum	3 credits

M.Ed. Minimum Total 37 credits

Additional Licensure Requirements

Completion of the special education concentration requirements provides training for additional licensure for individuals who are currently licensed in special education in Tennessee. Individuals in the special education concentration who do not already have a professional education license and desiring licensure must complete the following:

Additional Requirements for Licensure

SPED 3300 Instructional Methodology in Special Education	3 credits
EDFN 2300 Foundations of Teaching	3 credits
HDAL 3310 Educational Psychology	3 credits
READ 3100 Foundations of Reading	3 credits
CUAI 3430 Methods in Teaching Elementary Mathematics ...	3 credits

Individuals in the special education concentration who have a professional education license in an area other than special education must complete only the following:

SPED 4477/5477 Special Education Assessment	3 credits
SPED 2300 Exceptional Learners	3 credits
SPED 3400 Behavior Management for Individuals with Disabilities	3 credits
SPED 3350 Medical Aspects in Special Education	3 credits

Technology

Master of Science in Technology

Department of Technology in the College of Business and Technology

Hugh Broome, Graduate Coordinator

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Faculty:

See College of Business and Technology

The Department of Technology offers programs in the technologies found in our society. Technology is the study of the creation and utilization of adaptive systems including tools, machines, materials, techniques, and technical means, and the relation of the behavior of those elements and systems to human beings, society, and the culture. Industrial and technological concepts are presented through a number of methods including technical laboratories, field experiences, research, industrial visitations, cooperative programs, and lecture.

The purpose of the Department of Technology is to provide educational experiences in the areas of engineering technology, industrial technology, and technology education. In pursuit of this goal, the department provides general, professional, and technical learning experiences which are characterized by instructional excellence, professional community services, and scholarly activities.

The department is structured to provide students with opportunities to enhance their general, professional, and technical backgrounds. Also, to help prepare them to be responsive to changes in technology and adapt to emerging technical needs and concepts. The students served at the graduate level consist of: (1) individuals strengthening their technical and educational background in regard to their careers in technology and/or education, (2) persons seeking teacher certification in order to change their instructional field, and (3) persons preparing for a second career.

The curriculum in the Department of Technology provides the knowledge, experience, and concepts needed to develop the learner's capacity to interpret and manage situations that occur in our technological society. The graduate program offers three concentrations: engineering technology, digital media and geosciences. In the engineering technology concentration, students may integrate a variety of courses that will allow emphasis in a technical area as related to their career goals. The digital media concentration offers options in multimedia, visualization, hypermedia and product design. The geosciences concentration allows students to explore the many aspects of geoscience including geography, geology and geomatics.

The Engineering Technology Concentration is for students who plan to become, or are now, involved in supervising or coordinating workers, materials, and equipment in a production system, or who are resolving technical problems related to the courses offered. Individuals completing the program should be qualified to deal with tooling, methods, planning, quality control and reliability, and management aspects of production in manufacturing and other industries.

The Digital Media Concentration offers a multidisciplinary approach to research in, and the creation of, digital and interactive communication and design. This program provides students with a combination of theoretic, aesthetic and technical knowledge necessary for success as digital media developers, creators, evaluators, researchers and producers. Graduates from the Digital Media Concentration will be able to apply and manage new media tools and technologies in a rapidly changing environment for communication, instruction, creative production, and research; will be familiar with the quantitative and qualitative skills needed to analyze and evaluate functional and communication aspects of interactive multimedia design and production; and will have attained a theoretical base upon which to build and manage successful digital media productions.

The Geosciences Concentration is designed to provide learners with a foundation in research investigations, quantitative techniques, theories of place, management and geoscience thought. It will also allow them the flexibility to study in depth one of the three major aspects of geosciences.

Program Admission Requirements

1. A student must possess a bachelor's degree from a regionally accredited institution of higher learning. The degree major or minor should be in a technically related area. In case of a deficiency in the applicant's undergraduate background, the student will be required to complete needed undergraduate courses prior to acceptance into the graduate program.
2. Consideration for admission to the graduate program is normally an overall grade point average of 3.0 on a 4.0 grading system.

Concentration Requirements

ENGINEERING TECHNOLOGY CONCENTRATION

Students in the Engineering Technology Concentration may select either the thesis option, which requires 30 semester hours, including ENTC 5960, or the non-thesis option, which requires 36 semester hours, including ENTC 5800 Strategic Experience. Upon completion of either option, the student must take a comprehensive examination.

All students electing the engineering technology concentration must complete the following core courses:

ENTC 5030 Investigation in Technology	3 credits
ENTC 5950 Methods of Research	3 credits
MGMT 5010 Essentials of Management, or	
MGMT 5110 Operations Management	3 credits
Total (core)	9 credits

The remainder of the required graduate hours will be chosen with the guidance and the approval of the student's graduate committee to provide advanced educational experiences related to the student's career goals.

Total number of Graduate Hours 30-36

Master of Science Degree in Technology – Digital Media

The Digital Media concentration offers a multidisciplinary approach to research in, and the creation of, digital and interactive communications, animation, video and design. This program provides students with a combination of theoretical, aesthetic and technical knowledge necessary for success as digital media developers, creators, evaluators, researchers and producers. Graduates from the Digital Media concentration will be able to apply and manage new media tools and technologies in a rapidly changing environment for communication, instruction, creative production and research; will be able to analyze and evaluate functional and communication aspects of interactive multimedia design and

production; and will have attained a theoretical base upon which to produce and manage successful digital media productions.

Students taking courses in the Digital Media concentration will pay a program fee of \$100 per semester hour for each Digital Media course taken to cover program costs for software, equipment and facilities.

Program Admission Requirements for Digital Media

Applications will be ranked by the following criteria. Applicants will be selected according to available space and their potential for unique contribution to this highly selective program. Due to the interdisciplinary nature of the digital media field, successful applicants may come from a variety of academic backgrounds—such as art, communication, music, theatre, computer science, technology, curriculum design, architecture, or industrial design—or may have considerable experience in the design and production of digital media products. A student applying for admission must:

1. Provide a portfolio or other evidence of professional competence in one or more elements of digital media such as web production, interactive CD or DVD ROM development, 3-D modeling/visualization, animation, graphic design, computer art, computer programming, instructional design (distance learning and/or interactive instructional software of on-line instruction), video/film, writing, photography, or audio production.
2. Demonstrate competency in multiple softwares as evidenced by work included in the portfolio and as documented in application materials.
3. Have an undergraduate GPA of at least 3.0 on a 4.0 scale.
4. Provide a written Statement of Purpose (1000-1500 words) describing reasons for wishing to enter the program, goals for his/her career in the field of digital media, and ideas and topics for research in the digital medias that the applicant may wish to pursue.
5. Have a TOEFL of at least 570 (paper score) or 230 (computer score), or an IELTS score of 6.5 (international students).
6. Include with the application any applicable professional and academic accomplishments such as awards and honors.
7. Deadlines for application to the Digital Media Program are March 1 for fall admission, and October 1 for spring admission.

Students whose preparation is lacking in certain areas may be required to take additional undergraduate courses that will not be counted towards the M.A. degree.

Digital Media Concentration

Students in the Digital Media Concentration may select either the thesis option requiring 33 semester hours including DIGM 5960 Thesis, or the non-thesis option requiring 36 semester hours including DIGM 5970 Digital Media Research Project.

Core Requirements:

All students in the Digital Media concentration must complete the following core courses:

ENTC 5950 Methods of Research	3 credits
DIGM 5820 New Media Communication and Research	3 credits
Choice of one of the following graduate business courses:	
BADM 5670 Strategic Management of Technology and Innovation,	
ENTC 5640 Innovative Entrepreneurship	
ENTC 5630 Project Management	3 credits
Total core requirement credits	9 credits

Guided Electives:

Students must take at least 21 additional hours (thesis option), or 24 hours (non-thesis option) of graduate-level guided electives. A combination of research and production electives may be chosen in consultation with your graduate committee chair and/or the Digital

Media Program graduate coordinator, and should support your chosen study emphasis.

Choose approved elective courses from the following:

DIGM 5147 Fundamentals of Character Animation	3 credits
DIGM 5146 Character Animation Graduate Laboratory	1 credit
DIGM 5617 Advanced Raster-Based Imaging	3 credits
DIGM 5616 Raster-Based Imaging Graduate Laboratory	1 credit
DIGM 5627 Compositing	3 credits
DIGM 5626 Compositing Graduate Laboratory	1 credit
DIGM 5637 Advanced Interaction Design	3 credits
DIGM 5636 Interaction Graduate Laboratory	1 credit
DIGM 5647 Advanced Animation	3 credits
DIGM 5646 Animation Graduate Laboratory	1 credit
DIGM 5657 Advanced Web Design	3 credits
DIGM 5656 Web Design Graduate Laboratory	1 credit
DIGM 5667 Advanced Product Design	3 credits
DIGM 5666 Product Design Graduate Laboratory	1 credit
DIGM 5817 3D Effects Animation	3 credits
DIGM 5816 3D Effects Animation Graduate Laboratory	1 credit
DIGM 5821 Digital Media as an Art Form	4 credits
DIGM 5827 Experimental Digital Video	3 credits
DIGM 5826 Experimental Digital Video Graduate Lab.	1 credit
DIGM 5877 Advanced Modeling & Lighting	3 credits
DIGM 5876 Modeling & Lighting Graduate Laboratory	1 credit
DIGM 5887 Technical Direction for Animation	3 credits
DIGM 5886 Technical Direction Graduate Laboratory	1 credit
DIGM 5900 Independent Study in Digital Media	1-3 credits
DIGM 5910 Experimental Media I	3 credits
DIGM 5915 Experimental Media II	3 credits
DIGM 5957 Topics in Digital Media	2-4 credits

Guided electives may also be taken in Technology, Computer Science, Art, Communications, Business, Math and other departments as appropriate to support a student's chosen study emphasis and as approved by the program.

Internship or Co-op experiences are encouraged, but credits cannot be applied toward program requirements.

Total guided elective credits **21-24**

Note: Production-oriented courses may be combined graduate/undergraduate courses. These courses have numbers that end in a "7" (5xx7). No more than 10 hours (thesis option) or 11 hours (non-thesis option) of 5xx7 courses may be applied toward program requirements. Also, no more than 10 hours (thesis option) or 11 hours (non-thesis option) of Independent Study may be applied toward program requirements.

Culminating Experience:

All students in Digital Media concentration will be required to complete a "culminating experience" consisting of either DIGM 5960 Thesis, or DIGM 5970 Digital Media Research Project (non-thesis option). Both the Thesis and the Digital Media Research Project options require that the student work under the guidance of his/her advisory committee.

An oral presentation and defense of the completed culminating work must be scheduled. At this time the committee will perform a final review of the Thesis or Research Project. The student may (1) pass; or (2) fail, with an opportunity for further study and re-evaluation by the committee. A second failure will result in the student's dismissal from the program. All M.S. candidates in Digital Media must provide the Department of Technology with a copy of the completed work, archived in an appropriate format, as approved by the committee.

Total credits required for the Culminating Experience **3**

Total credits required for the M.S. Degree **33-36**

GEOSCIENCE CONCENTRATION

Students in the Geoscience Concentration must complete 30 credit hours including ENTC 5960 Thesis.

All students in the Geoscience Concentration must complete the following core courses:

Technology Core:

ENTC 5030 Investigations in Technology 3 credits

ENTC 5950 Methods of Research 3 credits

MGMT 5010 Essentials of Management

or

MGMT 5110 Operations Management 3 credits

Total Technology Core 9 credits

Geoscience Core:

GEOG 5000 Quantitative Techniques 3 credits

GEOG 5010 Location Theory 3 credits

GEOG 5310 Evolution of Geoscience Thought 3 credits

Total Geoscience Core 9 credits

The geoscience graduate student will write a thesis (ENTC 5960) on a research subject selected by the student with approval by the graduate faculty advisor. The paper will be submitted to appropriate journals for national publication, and the student will present it to the graduate committee as part of the degree requirements.

Geoscience students should select at least 9 credits from the following:

GEOL 5587 Engineering Geology 4 credits

GEOL 5617 Structural Geology 4 credits

GEOG 5007 Geography of the United States 3 credits

GEOG 5077 Seminar in Geography of Southern Appalachian. 3 credits

GEOG 5110 Seminar in Physical Geography 3 credits

GEOG 5117 Resource Management 3 credits

GEOG 5140 Seminar in Regional Geography 3 credits

GEOG 5210 Geography in Settlement and Land Use 3 credits

GEOG 5217 Geographic Information Systems 3 credits

GEOG 5227 Remote Sensing 3 credits

GEOG 5237 Advanced Remote Sensing 3 credits

GEOG 5257 Geography of Soils 3 credits

GEOG 5267 Hydrology 4 credits

GEOG 5317 Advanced Geographic Information Systems 3 credits

GEOG 5320 Geography Information Systems Projects 3 credits

GEOG 5417 The Teaching of Geography and Earth Science 3 credits

GEOG 5807 Advanced Field Methods 3 credits

GEOG 5957 Topics in Geoscience 3 credits

SURV 5110 Physical Geodesy 3 credits

SURV 5517 Photogrammetry 4 credits

SURV 5537 Land Boundary Location 4 credits

SURV 5547 Land Subdivision and Platting 4 credits

SURV 5567 Positioning with GPS 3 credits

SURV 5617 Digital Imagery Processing 3 credits

BIOL 5247 Appalachian Flora 3 credits

BIOL 5257 Appalachian Fauna 3 credits

BIOL 5347 Biogeography 3 credits

BIOL 5467 Ichthyology 3 credits

BIOL 5477 Ornithology 3 credits

BIOL 5300 Topics in Ecology and Evolution 3 credits

URBS 5107 Urban Geography and Planning 3 credits

URBS 5637 Local and Regional Planning 3 credits

PMGT 5180 Public Policy Analysis 3 credits

PMGT 5240 Seminar in Public Management 3 credits

East Tennessee State University
School of Graduate Studies
Graduate Course Listing by Abbreviated Prefix

Abb.	Description	Abb.	Description
ACCT	Accountancy	LANG	Foreign Languages
ADVR	Advertising	MALS	Master of Arts in Liberal Studies
ALNU	Adult Nursing	MATH	Mathematics
ANCB	Anatomy and Cell Biology	MCOM	Mass Communications
ARTA	Art and Design	MDED	Medical Education
AVST	Archival Studies	MEDA	Educational Media and Educational Technology
BADM	Business Administration	MGMT	Management
BIOC	Biochemistry and Molecular Biology	MICR	Microbiology
BIOL	Biological Sciences	MKTG	Marketing
BIOM	Biomedical Science	MUSC	Music
CDIS	Communicative Disorders	PEXS	Physical Education, Exercise, and Sport Sciences
CHEM	Chemistry	PHAR	Pharmacology
CJCR	Criminal Justice and Criminology	PHIL	Philosophy
CSCI	Computer and Information Sciences	PHYS	Physics
CUAI	Curriculum and Instruction	PHYT	Physical Therapy
DIGM	Digital Media	PHSI	Physiology
ECED	Early Childhood Education	PMGT	Public Management
ECON	Economics	PMNU	Professional Roles/Mental Health Nursing
EDFN	Foundations of Education	PSYC	Psychology
ELPA	Educational Leadership and Policy Analysis	PUBH	Public Health
ENGL	English	PUBR	Public Relations
ENTC	Technology	READ	Reading
ENVH	Environmental Health	RTVF	Radio/Television/Film
FACS	Family and Consumer Sciences	SALM	Sports and Leisure Management
FCNU	Family/Community Nursing	SCED	Science Education
FNCE	Finance	SOAA	Sociology and Anthropology
FREN	French	SOWK	Social Work
GEOG	Geography	SPAN	Spanish
GEOL	Geology	SPCH	Speech
GERM	German	SPED	Special Education
HDAL	Human Development and Learning	SURV	Surveying and Mapping
HIST	History	THEA	Theatre
HSCI	Health Sciences	URBS	Urban Studies
IDGE	Interdisciplinary Gerontology		
JOUR	Journalism		

Accountancy Course Listing (ACCT) Courses for Graduate Students Only

ACCT 5000. Essentials of Accounting (3 credits) — An accelerated study of accounting elements with an emphasis on the identification, measurement, and communication of data for stockholder and creditor usage. Designed for graduate students with limited or no background in accounting.

ACCT 5010. Seminar in Financial Accounting I (3 credits) — *Prerequisite:* ACCT 3020 or equivalent. A brief history of accounting followed by a study of alternative accounting theory structures, concepts of assets valuation and income determination, measurements, and reporting classification. ACCT 5010 is available only to M.Acc. and M.B.A. students.

ACCT/PMNU/PUBH 5050. Health Care Accounting and Finance (3 credits) — This course applies the concepts of accounting and finance within the context of the health care industry. Course coverage includes basic accounting and finance principles and how these principles are applied in the health care arena. Topical coverage includes financial statement preparation and analysis, cash flow analysis, cost behavior and control, capital acquisition, budgeting, reimbursement mechanisms, and managed care. (fall)

ACCT 5100. Managerial Accounting (3 credits) — *Prerequisite:* ACCT 5000 or equivalent. An in-depth study of accounting oriented toward the analysis and interpretation of data for business decision making. This course is not available to M.Acc. students.

ACCT 5110. Seminar in Managerial Accounting (3 credits) — *Prerequisite:* ACCT 3110 or equivalent. An advanced study of managerial accounting concepts and methods as applied to the business planning and control functions.

ACCT 5310. Seminar in Management Advisory Services (3 credits) — *Prerequisite:* ACCT 4310 or permission of the instructor. A study of consulting services, as practiced in public accounting and industry, including the development, utilization, and control of modern accounting systems.

ACCT 5410. Seminar in Taxation (3 credits) — *Prerequisite:* ACCT 3410 or equivalent. An advanced study of federal income, estate, and gift taxation with emphasis on tax research and planning.

ACCT 5610. Seminar in Auditing (3 credits) — *Prerequisite:* ACCT 4610 or equivalent. An advanced study of auditing standards, professional ethics, legal responsibility, procedures, principles, theory, and practice. Emphasis is placed on developing an appreciation of current trends in auditing.

ACCT 5720. Government Accounting Issues (3 credits) — *Prerequisite:* ACCT 2010 or ACCT 5000 or permission of the instructor. This course takes a political economy approach and covers significant points of discussion, debate, or dispute in government accounting. It focuses upon the role and function of accounting in government by exploring the character of public budgeting and finance and the uses of government financial information.

ACCT 5810. Seminar in International Accounting (3 credits) — *Prerequisite:* ACCT 3020 or equivalent. An advanced study of the reporting of foreign operations, variations in accounting practices among countries, and current international accountancy problems.

ACCT 5890. Professional Accounting Experience (3 credits) — *Prerequisites:* All required M.Acc. core courses or permission of the instructor. This capstone course is designed to provide an opportunity for M.Acc. students nearing the end of their program to apply their knowledge and skills in a professional accountancy environment. ACCT 5890 is restricted to students in the M.Acc. program or the M.B.A. program, assuming that the latter meet all M.Acc. foundation requirements.

ACCT 5900. Independent Study in Accountancy (1-3 credits) — A course designed for graduate students who, under the direction of an accountancy faculty member, wish to engage in independent research or an intensive study of subjects not covered in other available courses. Prior departmental and college approval is needed.

Course Co-listed in Undergraduate Catalog

ACCT 5427. Income Taxes II (3 credits) — *Prerequisite:* ACCT 3410 or equivalent. A study of federal income tax law with emphasis on taxation of corporations and partnerships. Federal taxation of trusts, estates, and gifts are covered.

ACCT 5527. Financial Statement Analysis (3 credits) — *Prerequisite:* ACCT 2020 or equivalent. An in-depth study of the methods used to analyze balance sheets, income statements, cash flow statements, and other financial information. The types of analyses studied include ratio analysis, cross-sectional analysis, time-series analysis, and capital market analysis.

ACCT 5627. Auditing II (3 credits) — *Prerequisite:* ACCT 4610 or equivalent. A study of auditing concepts with emphasis on the uses of statistical sampling, auditing EDP systems, analytic review techniques and objectives, and methodology of operational auditing.

ACCT 5957. Topics in Accountancy (3 credits) — *Prerequisites:* Senior or graduate standing and permission of instructor. This course gives students an opportunity to study special problems and new developments in the field of accountancy.

Advertising Course Listing (ADVR) Courses for Graduate Students Only

ADVR 5101. Topics in Advertising (2-6 credits)

ADVR 5900. Independent Study in Advertising (1-3 credits)

Adult Nursing Course Listing (ALNU) Courses for Graduate Students Only

ALNU 5009. Health Assessment Throughout the Life Span (3 credits) — *Corequisite:* ALNU 5010. Advanced health assessment focuses on the assessment of the total health status of individual and family clients throughout the life span. Emphasis is placed on the decision-making processes to differentiate normal from abnormal health status. Content includes predictable pathological findings and the mechanisms underlying them. (fall)

ALNU 5010. Health Assessment Throughout the Life Span Practicum (3 credits) — *Corequisite:* ALNU 5009. This practicum provides the student with opportunities to conduct advanced health assessment focusing on the assessment of the total health status of individual and family clients throughout the life span. Emphasis is placed on the decision-making processes which differentiate normal from abnormal health status. The practicum includes extensive laboratory practice and clinical placements. (fall)

ALNU 5011. Life Span Assessment and Clinical Management: Young & Middle Adults (2 credits) — *Prerequisites:* ALNU 5009, 5010, PMNU 5000. This course focuses on the health and illness problems experienced by young and middle adults in underserved, rural, and urban populations. Content focuses on primary and secondary prevention measures in improving health status. Emphasis is on acquiring an expanded knowledge base for the application of the nursing process to facilitate coping and adaptation relative to both health maintenance and restoration. Content includes developmental, physiological, pathological, and psychosocial variables related to health/illness problems and life transitions of young and middle adults. (spring)

ALNU 5012. Life Span Assessment and Clinical Management: Young & Middle Adult Practicum (3 credits) — *Prerequisites:* ALNU 5009, 5010, PMNU 5000. *Pre-corequisites:* ALNU 5011, 5016, 5018. This practicum is designed to provide the student with opportunities to apply theoretical and/or scientific knowledge to health and illness care of young and middle adults in underserved, rural, and urban populations. Clinical experiences include direct care in managing clients with selected minor illnesses and chronic health problems as well as developmental problems specific to this population group. (spring)

ALNU 5013. Life Span Assessment and Clinical Management: Older Adults (2 credits) — *Prerequisites:* ALNU 5009, 5010, PMNU 5000. This course focuses on nursing and health care management of the older adult in underserved, rural, and urban populations. Course content includes physiological, pathological, and psychosocial changes relative to problems of health maintenance, minor acute illnesses, chronicity, and life transitions. Emphasis is given to intervention and evaluation strategies which enhance direct and indirect care coordination of services, and holistic care for older adults and their families. (summer)

ALNU 5014. Life Span Assessment and Clinical Management: Older Adult Practicum (3 credits) — *Prerequisites:* ALNU 5009, 5010, PMNU 5000. *Pre-corequisite:* ALNU 5013, 5016, 5018. This practicum is designed

to provide the student with opportunities to deliver advanced nursing care to older adults, including the underserved, in rural and urban settings. Clinical practice focuses on interdisciplinary teamwork for maintaining function through multidimensional assessment, treatment, follow-up, and evaluation. (summer)

ALNU 5016. Pathophysiology for Nursing Diagnoses and Interventions (3 credits) — This course is a study of the reaction of the body as a whole to disease throughout the life span. The focus is on alterations in biological processes which affect the body's dynamic equilibrium and a conceptual approach that is designed to integrate knowledge from the basic and clinical sciences. Alterations at the cellular and organ level are presented. These alterations include genetic, metabolic, infectious, immunologic, degenerative, and neoplastic processes. (fall, spring)

ALNU 5018. Advanced Clinical Pharmacology (3 credits) — An advanced pharmacology and therapeutics course specifically designed for the student in a nurse practitioner program. The course provides an intense exploration of pharmacological agents used to treat common recurrent health problems of clients across the life span. Indications, contraindications, and interactions of pharmacological agents most utilized in primary health care settings will be presented. The professional role of the nurse practitioner in relation to prescriptive authority will be examined. (summer, fall)

ALNU/FCNU/PMNU 5019. Supervised Experience in Teaching (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with teaching assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

ALNU 5021. Case Management (2 credits) — *Prerequisite: Graduate status or permission of instructor.* This course focuses on the current and evolving role of the professional in case management and in the managed care environment. Dimensions of the case management role will be explored through class discussion, oral and written presentation, and expert testimony. Students will have the opportunity to explore the process of case management from a variety of theoretical perspectives, and they also will have the opportunity to examine emerging trends. (spring)

ALNU 5022. Case Management Practicum (3 credits) — *Prerequisite: ALNU 5021.* This course focuses on the implementation of the case management role. The student will have the opportunity to practice case management with selected clients in a variety of settings appropriate to the student's area of study. The student will gain experience in evaluating different philosophies and methods of case management implementation. (spring)

ALNU/FCNU/PMNU 5029. Supervised Experience in Research (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with research assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

ALNU 5031. Care of the Older Adult in Structured Settings (2 credits) — *Prerequisites: PMNU 5000, ALNU 5009, 5010.* This course focuses on nursing and health care management of the older adult in acute and long-term care settings. Content includes issues that arise with institutionalization, techniques to maintain autonomy and function, as well as regulatory, reimbursement, and ethical issues that affect older adults in structured settings. (fall)

ALNU 5032. Practicum in the Care of the Older Adult in Structured Settings (3 credits) — *Prerequisites: PMNU 5000, ALNU 5009, 5010. Pre-requisites: ALNU 5031, 5016, 5018.* This course focuses on the clinical practice of nursing and health care management of the older adult in acute, extended, and long-term care settings in rural and urban areas. Emphasis is given to differential diagnosis and treatment of common complex problems. (fall)

ALNU 5038. Pharmacology and Therapeutics for Older Adults (1 credit) — *Prerequisite: ALNU 5018.* A specialized geropharmacology course for the Graduate-level nursing student that provides concentrated study in the art and science of safe and appropriate pharmacological management of the health needs of older adults.

ALNU/FCNU/PMNU 5039. Supervised Experience in Administration or Service (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with administrative or service assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

ALNU/FCNU/PMNU 5900. Independent Study (1-6 credits) — Independent study in consultation with a member of the graduate nursing faculty. Directed study and/or research in an area for which the student has special interest and adequate preparation. (variable)

ALNU/FCNU/PMNU 5960. Thesis (1 - 6 credits) — (fall, spring, summer)

ALNU/FCNU/PMNU 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

ALNU 6010. Concept Development in Nursing Practice I (3 credits) — In this course, the student analyzes selected concepts relevant to the health of clients across the life span. The biological, psychological, and sociological constructs studied in this course provide the theoretical and empirical knowledge base for nursing practice. (spring)

ALNU 6012. Concept Development in Nursing Practice II (3 credits) — This course provides an opportunity for the student to synthesize concepts and research findings in nursing and related fields relevant to their selected health focus area. Through analysis of a variety of conceptual models, the student begins to develop a theoretical approach to the study of a particular problem in a practice or practice-related setting. (summer)

ALNU 6016. Advanced Concepts in Pathophysiology (3 credits) — *Prerequisites: Graduate-level pathophysiology and Graduate-level research.* This course explores knowledge emerging from recent research in pathophysiology, examines current research trends, and presents designs and processes that focus on the clinical application of research findings.

ALNU 6900. Dissertation Seminar (1 credit) — *Prerequisite: FCNU 6014.* This seminar provides students the opportunity to review, discuss, and critique research relevant to the student's proposed dissertation topic and design.

ALNU/FCNU/PMNU 6960. Doctoral Dissertation (1-12 credits) — *Prerequisite: Successful completion of Qualifying Examination.* Supervised research toward dissertation.

ALNU/FCNU/PMNU 6990. Readings and Research (1-3 credits, repeatable) — This course is required of all students who have completed 12 credits of Doctoral Dissertation (6960) but have not completed the dissertation and MUST be taken each semester (three credits) until the dissertation is completed. Additionally, students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus or dissertation MUST enroll for three credits of Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by the student's advisory committee in conjunction with other coursework, to receive credit for such activities as preparation of designated papers or development of research and scholarly skills that would be appropriately covered by other types of independent study.

Courses Co-Listed in Undergraduate Catalog

ALNU 5267. Nursing Management of the Critically Ill Adult (3 credits) — Comprehensive, systems-based nursing care of the critically ill adult client utilizing the nursing process with emphasis on health maintenance and restoration concepts, client and family psychosocial issues, and ethical-legal issues.

ALNU/FCNU/PMNU 5957. Special Topics in Nursing (1-6 credits)
— *Prerequisite. Permission of the instructor.* Special topics related to nursing and health care will be presented. Course may include didactic and experiential methods of instruction. May be repeated for credit if course content is significantly different or advanced.

Anatomy and Cell Biology Course Listing (ANCB) Courses for Graduate Students Only

ANCB 5000/6000. Medical Human Gross Anatomy (11 credits)
— *Prerequisite. Permission of the instructor.* A study of the structure of the human body as it relates to function. The course presents a three-dimensional analysis of the human body and includes correlated presentations of radiological, clinical and developmental anatomy. Lecture and Laboratory. (fall)

ANCB 5050/6050. Cell Biology (4 credits) — *Prerequisite. Permission of the instructor.* An introduction to the cell as the fundamental unit of life, with emphasis on what we know about cells and how that knowledge is obtained. The course focuses primarily on eukaryotic cells and includes content on cellular evolution, basic genetic mechanisms, structure and function of chromatin, the cell cycle, mitosis, meiosis, and cytogenetics. In addition, emphasis is placed on the various organelle systems in eukaryotic cells and how they interact with membranes and the cytoskeleton. Concepts related to cell signaling, developmental biology, immunology and neurobiology are also introduced in this course. (as needed)

ANCB 5080/6080. Biological Ultrastructure (4 credits) — *Prerequisite. Permission of the instructor.* This course presents an introduction to the theory and practice of electron microscopy and includes: tissue preparation for TEM and SEM; structure, components and operation of the electron microscope; darkroom techniques; x-ray spectroscopy; cytochemistry; vascular corrosion casting; and stereology. Students receive practical, hands-on experience in basic techniques. Lectures, laboratories, and demonstrations. (Alternate Year) Enrollment is limited.

ANCB 5095/6095. Cell and Tissue Biology (7 credits) — *Prerequisite. Permission of the instructor.* The course includes the study of human cells and tissues with an emphasis on the relationship of structure to function as seen through the use of modern cell biological techniques. Material is presented in four sequential modules: cytology, organology and endocrinology-reproductive biology. The cytology section includes mitosis, meiosis, and cell cycle, but the basic principles of cell organelle structure and function are emphasized throughout the course as they apply to each specialized tissue and organ. Lectures, laboratories and demonstrations. (spring).

ANCB 5110/6110. Developmental Biology (3 credits) — *Prerequisite. Permission of the instructor.* An in-depth analysis of developmental phenomena including gametogenesis, fertilization, cleavage, gastrulation, and neurulation. Special emphasis is placed on molecular mechanisms and the experimental approach to developmental problems. Lecture, demonstrations. (alternate years)

ANCB 5200/6200. Cellular, Molecular and Developmental Biology Seminar (2 credits) — *Prerequisite. Permission of the instructor.* Course involves presentations by both students and faculty of critical, in-depth reviews of particular topics of interest. Students are expected to participate actively in the discussion period. This course may be taken repeatedly for credit. (as needed)

ANCB 5410/6410. Human Neurobiology (6 credits) — *Prerequisite. Permission of the instructor.* The course involves an extensive analysis of the morphological, physiological, and behavioral aspects of the human nervous system. Clinical conferences will be used to illustrate normal and abnormal mechanisms of neural function and structure. Lecture, laboratory. (spring)

ANCB 5420/6420. Advanced Neurobiology (3 credits) — This course involves an analysis of the morphological basis of neural function in vertebrates. Special emphasis will be placed on the biological basis of behavioral processes and will include topics such as neural development at the cellular and system levels, the role of neurotransmitters in neural function, and the biology of neuronal plasticity. Lecture, demonstrations. (alternate years)

ANCB 5500/6500. Special Topics in Developmental Biology (3 credits) — This is a lecture course with special areas of interest to developmental biologists. Discussion would include gametogenesis, fertilization, cleavage, gastrulation and neurulation. (alternate years)

ANCB 5600/6600. Special Topics in Cell Biology (1-3 credits)
— This is a tutorial course on special areas of interest to cell biologists. May be taken repeatedly with different topics. (as needed)

ANCB 5700/6700. Special Topics in Neurobiology (3 credits)
— This is a lecture course with special areas of interest to neurobiologists. Discussion will include the morphological basis of neural function in vertebrates. (as needed)

ANCB 5750/6750. The Living Cell (2 credits) — This course includes briefings on films made by time-lapse cinematography that show cell motility, cell division, cell surface activity, cytoplasmic streaming and maturation of female and male gametes. (alternate years)

ANCB 5900/6900. Special Problems in Anatomy and Cell Biology (1-5 credits) — Emphasized are advanced research projects of a scope to allow the student to develop skills or establish a specific interest in a research area. May be taken repeatedly with different topics. (as needed)

ANCB 5960. Anatomy and Cell Biology Thesis Research (3 credits) — Supervised research toward thesis. (every semester)

ANCB 7960. Anatomy and Cell Biology Dissertation Research (15-21 credits) — Supervised research toward dissertation. (every semester)

ANCB 5990/7990. Anatomy and Cell Biology Reading and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Art and Design Course Listing (ARTA) Courses for Graduate Students Only

ARTA 5901-02. Independent Studies in Graduate Art (1-6 credits repeatable) — (Every semester).

ARTA 5910. Independent Studies in Graduate Art History (1-6 credits, repeatable) — Areas of study include: Baroque, Classical, Medieval, Renaissance, 19th Century, Contemporary, 20th Century, Oriental, theory and criticism. (fall, spring)

ARTA 5950. Methods of Research (3 credits) — Required of all graduate students in art. Includes the techniques of supporting paper and thesis writing and the preparation of an acceptable prospectus for a proposed thesis or supporting paper. This course is offered once a year.

ARTA 5960. Thesis. (3 credits) — *Prerequisites: Admission to candidacy and approval by the department.* Final Preparation of master's thesis.

ARTA 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Studio Courses

ARTA 5061. Graduate Metalsmithing and Jewelry Design (1-6 credits, repeatable) — (fall, spring)

ARTA 5110. Graduate Ceramics (variable 1-6 credits, repeatable) — (fall, spring)

ARTA 5130. Graduate Painting (variable 1-6 credits, repeatable) — (fall, spring)

ARTA 5140. Graduate Photography (variable 1-6 credits, repeatable) — (fall, spring)

ARTA 5160. Graduate Sculpture (variable 1-6 credits, repeatable) — (fall, spring)

ARTA 5170. Graduate Fibers (variable 1-6 credits, repeatable) — (fall, spring)

ARTA 5200. Graduate Drawing (variable 1-6 credits, repeatable) — (fall, spring)

ARTA 5350. Graduate Graphic Design (variable 1-6 credits, repeatable) — (fall, spring)

ARTA 5911. Graduate Printmaking (variable 1-6 credits, repeatable) — (fall, spring)

Courses Co-listed in Undergraduate Catalog

ARTA 5017. Classical Art (3 credits) — A survey of the arts of Greece and Rome. (fall)

ARTA 5027. Art History of the Middle Ages (3 credits) — A survey of European architecture, sculpture, and painting from late antiquity to the end of the Gothic period. (fall, even years)

ARTA 5037. Art History of the Renaissance Period (3 credits) — A survey of European art from 1300 to 1600 with emphasis on Italian. (variable)

ARTA 5047. Art History of the Baroque Period (3 credits) — A survey of the major styles of European art from 1600 to 1800: Baroque, Rococo, and Neoclassicism. (fall)

ARTA 5057. Art History of the 19th Century (3 credits) — A survey of the major styles and trends in art from Neoclassicism to Postimpressionism. (spring)

ARTA 5067. Twentieth Century Art (3 credits) — Major developments in painting and sculpture from Postimpressionism through Surrealism. (fall)

ARTA 5077. Contemporary Art (3 credits) — A survey of art since 1945. (spring)

ARTA 5087. Oriental Art (3 credits) — A study of the arts of India, China, and Japan. Topics vary each semester. (as needed)

ARTA 5097. Art History, Theory, and Criticism (3 credits) — An investigation of art theory and criticism in relation to the art of a particular time and place. Times and places chosen will vary, e.g., 19th century European romantic art, classic Brahmanical Hindu art, medieval sacred art, or modern symbolism. (as needed)

ARTA 5107. Art Study Tour (variable 1-3 credits) — This course is designed to acquaint the student with original works of art. The lecture series is followed by a trip to selected museums in the U.S. and/or Europe. (as needed)

ARTA 5957. Topic in.... (2-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in art. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment. (as needed)

Archival Studies Course Listing (AVST) Courses for Graduate Students Only

AVST 5310. Archives History and Issues (3 credits) — Introduces the student to archives and the archival profession. The course provides an overview of the development of record-keeping systems, types of archives repositories, the mission of the archivist, legislation and regulations influencing archival work, and contemporary concerns of the archival profession.

AVST 5311. Archives Theory and Practice (3 credits) — Covers the following topics: archival theory and the nature of archives; appraisal and documentation strategies; acquisition and collection development; preservation of archival records; arrangement and description of collections; and reference, access, and outreach functions.

AVST 5312. Archives Conservation (3 credits) — Focuses on the physical nature of archival documents and their preservation, regardless of the documents' formats. Paper, audio and videotape, film, photographic prints and negatives, and electronic formats will be studied, as will causes and prevention of deterioration, preservation microfilming, digitization, and disaster preparedness.

AVST 5570. Archives Practicum (3 credits) — *Prerequisites: AVST 5310-5311-5312.* A directed work experience that allows students to apply archival knowledge and skills learned in a classroom setting to an archival setting. With the approval of the Archival Studies Coordinator, the student will work under the supervision of a professional archivist at a local repository.

Business Administration Course Listing (BADM) Courses for Graduate Students Only

BADM 5100. Strategic Management Process (3 credits) — *Prerequisites: ECON 5000, MGMT 5010 and MKTG 5010 or equivalents.* This course introduces students to strategic thinking and provides a framework for the entire M.B.A. program. It takes an executive perspective of general management. The course provides an understanding of the interdependence between the organization and its environment, with a focus on managing organizations in changing environments, maintaining legitimacy with diverse stakeholder groups, providing clear corporate direction, and ensuring the long-term survival and success of the enterprise.

BADM 5120. Managing Organizational Change (3 credits) — *Prerequisite: MGMT 5010 or equivalent.* This course examines the relationship between business organizations and environmental change, with particular emphasis on the changing dynamics of the ethical, social, and ecological dimensions of the environment. It focuses on the development of learning organizations, structures designed to allow for creativity, and effectiveness in rapidly changing business environments.

BADM 5140. Research Methods and Statistics (3 credits) — *Prerequisite: ECON 5010 or equivalent.* This course examines the need for business research in developing sound decisions and policy and covers a range of statistical analysis tools. It explores the scope of business research, scientific reasoning, problem identification, hypothesis formulation, planning for data analysis, and sampling procedures. Topics in statistical analysis include chi-square tests, analysis of variance, regression and correlation, time series, forecasting, and nonparametric methods. Students are required to prepare the outline of a business research report dealing with a particular policy issue.

BADM 5160. Information Infrastructure (3 credits) — *Prerequisites: ACCT 5000 and MGMT 5010 or equivalents.* This course explores the strategic aspects of information and information systems. It is designed to provide managers with an appreciation of the sources and uses of information in modern enterprises and to help them understand information systems as part of the basic infrastructure of business organizations. The course also examines the use and management of information resources and information technology.

BADM 5300. Economic and Financial Decision Making (3 credits) — *Prerequisites: ECON 5000 and FNCE 5000 or equivalents and BADM 5140.* This course provides an understanding of economic theory and the basic tools of economics, financial valuation, and portfolio management as applied to business problems and decisions facing management professionals. Topics include demand analysis, financial markets, portfolio and capital market theory, asset and option pricing models, program trading, and portfolio insurance.

BADM 5320. Operations Strategy (3 credits) — *Prerequisites: ACCT 5000 and BADM 5100 or equivalents.* This course examines the strategic impact of decisions relating to the delivery of products and services in organizations. Applications and case analyses are used to study operational value and cost, materials management and distribution, management of service operations, and management for continuous improvement.

BADM 5340. Human Resource Strategy (3 credits) — *Prerequisite: BADM 5100.* This course studies human resource management in depth and provides a strategic overview of the essential knowledge required to manage a firm's human resources effectively. It explores human resources within various structures and with different job, skill, and behavioral

requirements. Emphasis is given to the strategic integration of human resource functions within the context of a firm's task environment.

BADM 5360. Financial Planning and Control (3 credits) — *Prerequisites: ACCT 5000 and FNCE 5000 or equivalents, BADM 5100, and BADM 5140.* This course examines how accounting, financial, and other information support management planning, control, and general decision making. Emphasis is placed on the provision of information for short- and long-term planning decisions and for measuring and evaluating the performance of individuals, groups, segments, and activities within the organization.

BADM 5370. Entrepreneurial Finance (3 credits) — The students will study issues relating to financial management in the entrepreneurial entity. These issues include start-up funding at various stages, ramifications of organizational form, financing day-to-day operations, sources and uses of capital, and other topics relating to the specific needs of smaller organizations. Additional topics such as exit strategies and ethical issues confronting entrepreneurs will also be discussed and studied.

BADM 5380. National and Global Environment (3 credits) — *Prerequisites: ACCT 5000 and FNCE 5000 or equivalents and BADM 5100.* This course studies the national and global economic environment as an integrated topic. It includes concepts and measures of macroeconomic performance at the national and global levels and the operational aspects of business at the global level. The course examines current economic and trade policies and their impact on the domestic and global economy as well as on individual organizations.

BADM 5400. Market Strategy (3 credits) — *Prerequisites: BADM 5100 and BADM 5300.* This course explores the role of marketing in the development of organizational strategy, with emphasis on business unit and product market strategy levels. Analytical approaches and tools to evaluate international and domestic market opportunities, competitors and buyers, are introduced and applied in a variety of learning models.

BADM 5670. Strategic Management of Technology and Innovation (3 credits) — This course applies the concepts of strategic management within a rapidly changing, technological environment. An emphasis will be placed on how organizations use and produce innovative technologies to develop competitive advantages. Specifically, the use of information technology and its role in the strategic management process will be addressed.

BADM 5800. Strategic Experience (3 credits) — *Prerequisites: BADM 5100 through 5400.* (May be taken concurrently with permission of Graduate Studies in Business program director.) This capstone course is designed to provide M.B.A. students nearing the end of their program with an opportunity to apply the knowledge and skills developed in the program in a realistic problem-solving environment. BADM 5800 is restricted to students in the M.B.A. program.

Biochemistry Course Listing (BIOC) Courses for Graduate Students Only

BIOC 5010/6010. Biochemistry (7 credits) — *Prerequisite: BIOM 5010-5040/6010-6040 or permission of the course director.* Study and discussion of protein structure and biological activity; generation and storage of metabolic energy; lipids and membranes. Lecture and conferences.

BIOC 5100/6100. Protein Structure and Function (3 credits) — *Prerequisite: Biomedical Science I-IV or permission of the instructor, or its equivalent.* A study of enzyme kinetic mechanisms and the physical chemistry of macromolecules. Techniques in protein chemistry. Three hours per week. Offered alternate years.

BIOC 5200. Biochemistry Seminar (2 credits) — Presentation by students, faculty, and guests of current research literature or of a particular topic of interest. Students must be prepared to participate in discussion. Can be taken repeatedly for credit. Two hours per week.

BIOC 5350/6350. Molecular Immunology (3 credits) — *Prerequisite: Biomedical Science I-IV or permission of the instructor.* This graduate course will provide a comprehensive overview of the molecular basis of the immune system. Topics covered will include the structure function, and genetic regulation of proteins involved in immune recognition, cytokines and their receptors, and mechanisms of cellular activation. Although previous

coursework in immunology is recommended, students without such experience may be enrolled with permission of instructor. Offered alternate years.

BIOC 5500/6500. Special Topics in Biochemistry (2 credits) — *Prerequisite: Biomedical Science I-IV or permission of the instructor.* Discussion of special topics of interest to biomedical scientists. Can be taken repeatedly for credit with different subject matter. Two hours per week.

BIOC 5600/6600. Genetics and Molecular Biology (3 credits) — *Prerequisite: BIOM 5010/6010 - BIOM 5020/6020 required, BIOM 5030/6030 - BIOM 5040/6040 recommended.* An advanced graduate course on molecular biology and genomics, focused on their principles and research practice. It is intended to provide students with the latest knowledge and methodologies for biomedical research at the level of gene structure, organization and expression in eukaryotic cells. Topics include macro-molecular interactions, structure-function relationships, regulation of gene replication and expression, applications of recombinant DNA methodologies, protein engineering and bioinformatics, genome mapping, and DNA damage, mutagenesis and repair.

BIOC 5700/6700. Macromolecular Interactions (3 credits) — *Prerequisite: Biomedical Science I-IV or permission of the instructor, or its equivalent.* Consideration of the physical and chemical behavior of biological macromolecules and their interactions in biological environments. The forces affecting the conformation, movement and interactions of lipids and proteins in solution and the physical methods that probe these interactions will be discussed. Offered alternate years.

BIOC 5900/6900. Special Problems in Biochemistry (2-5 credits) — Research projects of limited scope to allow the student to develop certain skills or to establish a specific interest in a research area. Conference and laboratory.

BIOC 5990/7990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

BIOC 5960. Biochemistry Thesis Research (3 credits) — Supervised research toward thesis.

BIOC 6200. Advanced Biochemistry Seminar (2 credits) — Presentation of selected topics of interest by faculty, advanced students, and guests. Requires student preparation for participation in discussion. This course may be repeated for credit.

BIOC 7960. Biochemistry Dissertation Research (15-21 credits) — Supervised research toward dissertation.

Biological Sciences Course Listing (BIOL) Courses for Graduate Students Only

BIOL 5100. Topics in Cell and Molecular Biology (3 credits) — Current topics in cell and molecular biology, with an emphasis on regulation of cellular processes. Included will be discussions of current approaches and experimental paradigms. Specific topics of discussion will vary each semester, depending on instructor. (spring, odd years)

BIOL 5200. Topics in Organismal Biology (3 credits) — An exploration of current topics in organismal biology - anatomical, physiological, and developmental aspects of plants and/or animals. Emphases will be placed on review of current original literature and on evaluation of research methods used to pursue questions in the discipline. Lecture and discussion sessions. Specific topics of discussion will vary each semester, depending on instructor. (fall, odd years)

BIOL 5300. Topics in Ecology and Evolution (3 credits) — An in-depth exploration of a particular topic related to the ecology and/or evolution of biological populations. Lectures, reading assignments (including

primary research literature), experience with research methods, and discussion. Specific topics of discussion will vary each semester, depending on instructor. (fall, even years)

BIOL 5400. Topics in Systematic Biology (3 credits) — The course stresses critical inquiry into current approaches in the analyses of evolutionary relationships of organisms. Included will be the application and comparison of methodologies and discussions of recent hypotheses of phylogeny and macroevolutionary trends. Emphasis will be placed on integration of ideas and the impact of theory on understanding biology. Specific topics of discussion will vary each semester, depending on instructor. (spring, even years)

BIOL 5600. Bibliographic Research (1 credit) — *Prerequisite: Graduate standing or consent of the instructor.* Methods of bibliographic research, including the use of computer searching, card catalogs, and abstract and index journals. One three-hour laboratory per week. (fall)

BIOL 5700. Seminar (1 credit) — *Prerequisite: Graduate standing or consent of the instructor.* Special topics presented and discussed by students, faculty, and guests. May be repeated for additional credit, but not to exceed two credits. (fall, spring)

BIOL 5900. Independent Studies (1-4 credits) — *Prerequisites: Permission of the instructor and department chair.* Independent research on a specific problem under the supervision of a faculty member. A plan of the research must be approved in advance of registration. Candidates for M.S. theses may retake a total of nine credits. (every semester)

BIOL 5960. Thesis (3 credits) — (every semester)

BIOL 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

BIOL 5989-99. Cooperative Education (variable credit) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Planned and supervised work assignments in business, industry, and government agencies. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees. (every semester)

Courses Co-listed in Undergraduate Catalog

BIOL 5037. Coastal Biology Field Trip (1 credit) — *Prerequisite: BIOL 1110, 1120 and 1130 or equivalent; must have permission of instructor.* Intensive field survey of coastal flora and fauna. Extra fees. Course can be repeated for credit with limit of one hour toward major. (fall)

BIOL 5047. Ecological Field Trip (3 credits) — *Prerequisites: BIOL 1110, 1120, and 1130, or equivalent; must have permission of instructor.* An extended field-oriented ecology course (approximately three weeks camping) to outstanding biomes of North America, i.e., deserts, alpine tundra, boreal forest and prairies, involving field instruction, specimen collection, identification of organisms in their natural habitats. Pre-trip and post-trip classroom sessions. Extra fees. Course can be repeated for credit with limit of three credits toward major. (summer)

BIOL 5147. Biochemistry of Macromolecules (3 credits lecture) — *Prerequisites: BIOL 1110 and one year of organic chemistry or equivalent.* Topics include cellular organization; pH and buffering; energy changes in molecular interactions; structure and characteristics of amino acids and proteins; structure/function relationships of enzymes, carbohydrates, and lipids; and studies of the production, structure, and function of nucleic acids. Three hours lecture per week. (fall)

BIOL 5157. Biochemistry of Macromolecules Lab (2 credits lab) — *Prerequisites or corequisite: BIOL 4147/5147 or equivalent.* The theory and use of lab instruments and techniques will be introduced through a series of experiments designed to explore buffering, enzyme isolation & characterization, and DNA isolation & characterization. Experiment planning and interpretation of data generated by the students will culminate in journal-style reports. One four-hour lab per week. (fall)

BIOL 5167. Biochemistry of Metabolism (3 credits) — *Prerequisites: BIOL 1110 and one year organic chemistry or equivalent.* The metabolism of carbohydrates, lipids, amino acids, and nucleotides will be covered with emphasis on reactions, enzymes, energy changes, pathway regulation, and pathway integration. Production of energy-rich molecules in the cell will be linked to important cellular functions (i.e., biosynthesis, movement, and transport). Three hours lecture per week. (spring)

BIOL 5177. Biochemistry of Metabolism Lab (2 credits) — *Prerequisite or corequisite: BIOL 4167/5167 or BIOL 4147/5147, or equivalent.* The theory and use of lab instruments and techniques will be introduced through a series of experiments designed to investigate photosynthesis, electron transport, polymerase chain reactions, and enzyme kinetics. Experiment planning and interpretation of data generated by the students will culminate in journal-style reports. One four-hour lab per week. (spring)

BIOL 5247. Appalachian Flora (3 credits) — *Prerequisites: BIOL 1110, 1120 and 1130 or equivalent, or permission of instructor.* Field and laboratory identification and ecology of the plants of the Southern Appalachian environs. Sixteen hours lecture and laboratory/field per week. (summer)

BIOL 5257. Appalachian Fauna (3 credits) — *Prerequisites: BIOL 1110 and 1120 or equivalent, or permission of instructor.* Field and laboratory identification and ecology of the animals of the Southern Appalachian environs. Sixteen hours lecture and laboratory/field per week. (summer)

BIOL 5267. Plant Development (4 credits) — *Prerequisite: Genetics or permission of instructor.* Patterns of plant development from zygote or spore to mature plant. Emphasis on cell and tissue differentiation, organogenesis, and the influence of growth regulators. In the laboratory, students will observe morphogenesis and will design and undertake a project of their choice. Two hours lecture and four hours laboratory per week. (spring, odd years)

BIOL 5277. Neurobiology (4 credits) — *Prerequisites: BIOL 1110/1111, 1120/1121, or equivalent.* An introduction to the study of neurobiology. Topics include fundamentals of cellular communication (action potentials, synaptic transmission, synaptic integration), sensory systems, motor systems, the neural basis of behavior, developmental plasticity, and learning. Examples are drawn from invertebrates as well as vertebrates. Four hours lecture per week. (fall)

BIOL 5337. Plant Systematics (4 credits) — *Prerequisites: BIOL 1110/1111, 1120/1121, 1130/1131 or equivalent.* Flowering plant classification and evolution. Characters and methods of traditional plant taxonomy, and computer-based phylogenetic methods using morphological and molecular data sets will be introduced. Plants will be studied in field and lab, and students will use data collected from plant specimens and from GenBank to conduct phylogenetic analysis in various angiosperm groups. Two hours of lecture and four hours of laboratory per week. (fall, odd years)

BIOL 5347. Biogeography (2 credits) — *Prerequisite: BIOL 1130 or equivalent, or permission of instructor.* Global and regional patterns in the distribution, abundance and variation of plants and animals related to geographic conditions and earth history. One two-hour lecture per week. (fall, even years)

BIOL 5357. Ethology (3 credits) — *Prerequisites: BIOL 1110, 1120, 1130 or equivalent.* An introduction to the study of animal behavior. Emphasis is placed on the ecology and evolution of behavioral patterns. Three hours lecture per week. (fall, odd years)

BIOL 5367. Systems Ecology (3 credits) — *Prerequisite: Ecology or permission of instructor.* Computer simulation modeling of ecological systems. Three hours lecture/discussion/workshop per week. (spring, even years)

BIOL 5467. Ichthyology (3 credits) — *Prerequisites: Vertebrate Zoology, or permission of instructor.* An introduction of the methodology of field collection, preservation, and identification of fishes. Quantitative analysis and preparation of summary reports on field collections will be emphasized. Two one-hour lectures and one three-hour laboratory per week. (fall, odd years)

BIOL 5477. Ornithology (4 credits) — *Prerequisites: Vertebrate Zoology or permission of instructor.* An introduction to the methodology of field identification, population censuses, seasonal diversity, and ecology of birds. One three-hour lecture and one three-hour laboratory per week. (spring)

BIOL 5597. Recombinant DNA Laboratory (3 credits) — *Prerequisites: BIOL 1110, 1120, 1130 or equivalent; plus one year Organic Chemistry.* Theory and practice in molecular biology and recombinant DNA techniques, including recombinant DNA construction and gene transfer. One hour lecture and two three-hour laboratories per week. (spring)

BIOL 5647. Molecular Biology (3 credits) — *Prerequisites: Genetics, plus one year Organic Chemistry; Cell Biology recommended.* Investigations into gene structure, gene expression and its regulation, and modern molecular methodology. Three hours lecture per week. (spring)

BIOL 5737. Conservation Biology (4 credits) — *Prerequisites: Genetics, or equivalent.* Underlying ecological and population genetic forces governing the structure and dynamics of populations. Evaluation of current conservation strategies. Labs include field experiments on biodiversity, species monitoring strategies, field trips and use of population viability analysis. Two hours lecture and one hour discussion, three hours laboratory per week. (fall, even years)

BIOL 5747. Population Genetics (4 credits) — *Prerequisites: BIOL 1130 or equivalent.* An exploration of mechanisms of genetic change in populations. Theoretical predictions and empirical evidence are considered. Emphasis on molecular-based methods. A combination of field and lab exercises. Three hours lecture and three hours laboratory per week. (fall, odd years)

BIOL 5757. Developmental Biology (3 credits) — *Prerequisites: Vertebrate Embryology or permission of instructor.* A study of advanced topics in developmental biology such as the role of extracellular matrix and gene regulation on gametogenesis and embryogenesis. Two one-hour lectures and one two-hour laboratory per week. (fall, odd years)

BIOL 5767. Plant Physiology (4 credits) — *Prerequisites: BIOL 1110, 1120 and 1130 or equivalent; plus one semester of Organic Chemistry.* A course in plant physiology dealing with physical and chemical processes affecting the growth, metabolism, and reproduction of plants. Includes study of the highly developed and diverse responses of plants to their environment. Three hours lecture, one hour oral component per week. (spring, even years.)

BIOL 5857. Aquatic Biology (3 credits) — *Prerequisites: Ecology or permission of instructor.* Field trips, collection, identification, and ecology of freshwater plants and animals. One hour lecture and two two-hour laboratories per week.

BIOL 5867. Marine Biology (4 credits) — *Prerequisites: BIOL 1110, 1120, 1130 or equivalent; Invertebrate Zoology recommended.* Principles of marine biology with emphasis on habitats and ecological processes. Two hours lecture and two two-hour laboratories per week. (spring)

BIOL 5910. Research in Biology (1-4 credits) — *Prerequisite: Permission of instructor.* Independent, directed research. Field of study to be determined by mutual consent of the student and faculty advisor. (Each semester)

BIOL 5957. Special Topics in Biological Sciences (2-6 credits) — *Prerequisite: Dependent on subject matter. Selected topics in biological sciences.* Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with instructor is recommended before enrollment. (fall, spring)

Biomedical Science Course Listing (BIOM) Courses for Graduate Students Only

BIOM 5010/6010 Biomedical Science I – Molecular Organization of Cells (3 credits) — The first in a four-course multi-disciplinary sequence that describes the fundamentals of modern biomedical research necessary for all biomedical science graduate students. The course presents a foundation in modern biochemistry, cell and molecular biology. Topics include chemical foundations, protein structure and function, nucleic acids and the genetic code, biomembranes, recombinant DNA and genomics and genetic analysis in cell biology. (fall)

BIOM 5020/6020 Biomedical Science II - Gene Expression and Regulation (3 credits) — The second in a four-course multi-

disciplinary sequence that describes the fundamentals of modern biomedical research necessary for all biomedical science graduate students. The course covers the essential aspects of molecular and developmental biology. Topics include: the structure of genes and chromosomes, DNA repair, DNA replication and recombination, RNA processing, the cell cycle and genetic control of development. (fall)

BIOM 5030/6030 Biomedical Science III - Cellular Anatomy and Physiology (3 credits) — The third in a four-course multi-disciplinary sequence that describes the fundamentals of modern biomedical research necessary for all biomedical science graduate students. This course covers topics involved in building and fueling cells including cell transport, cell energetics, protein sorting and cell motility and shape. (spring)

BIOM 5040/6040 Biomedical Science IV – Cell and Organ Interactions (3 credits) — The fourth in a four-course multi-disciplinary sequence that describes the fundamentals of modern biomedical research necessary for all biomedical science graduate students. Topics include extracellular signaling, hormones and receptors, second messengers and intracellular signaling, nerve cell functions, cell interactions in development and cancer. (spring)

BIOM 6210 Scientific Communication I (1 credit) — Taken by all first-year doctoral students in the fall. Students will attend seminars by external speakers, faculty and senior students. Students will critique presentations and discuss presentation techniques and style, slide preparation, etc. (fall)

BIOM 6220 Scientific Communication II (1 credit) — Taken by all first-year doctoral students in the spring. Students will make oral presentations on topics of interest and learn effective techniques for oral and written communication of scientific data. (spring)

BIOM 5110/6110 Introduction to Biomedical Research (1 credit) — This course will introduce students to the current research of the faculty of the College of Medicine. Departments and interdisciplinary research groups will present a series of short talks describing the research programs of the faculty. Students will meet in different locations and tour the laboratories and facilities. A written report on the scientific topics is required of each student. (fall)

BIOM 6120 Laboratory Rotations (3 credits) — A series of three to five laboratory rotations in which students gain a understanding of the research problems currently under investigation and the techniques employed in selected laboratories. Students select faculty whose research or research techniques is of particular interest and participate in four to six week long rotations involving hands-on laboratory experience and participation in laboratory discussions and other activities. (spring and arranged)

BIOM 5300/6300 Scientific Ethics (1 credit) — Lecture and group discussion of cases relating to contemporary issues of ethics and integrity in scientific research. Topics include: Scientific integrity, mentoring, scientific record keeping, authorship and peer review, use of animals in research, use of humans in research, conflicts of interest, ownership of data, intellectual property and issues relevant to genetic technology. (spring)

Communicative Disorders Course Listing (CDIS) Courses for Graduate Students Only

CDIS 5010. Neurological Bases of Communication and Cognition (3 credits) — A study of neuroanatomy and neurophysiology of communication and cognition. This course provides an overview of normal neuroanatomy and neurophysiology of communication, i.e. speech, language, hearing, and other cognitive processes related to communication, such as memory and attention. Emphasis will be primarily on normal speech, language, and other cognitive functions.

CDIS 5015. Language Disorders in Children (3 credits) — A study of principles of language assessment and intervention based upon psycholinguistic theory and current research on language disorders in children. Emphasis placed on the development of critical thinking and analytical skills related to the assessment and treatment of language disorders in children.

CDIS 5025. Clinical Phonology (3 credits) — A study of current issues in linguistic theories related to the assessment and treatment of phonological disorders in children. Emphasis on critical analysis of current research.

CDIS 5030. Fluency Disorders (1 credit) — A study of theories of etiology and the nature, evaluation, and treatment of children and adults with fluency or stuttering disorders.

CDIS 5035. Motor Speech Disorders (3 credits) — *Prerequisite: CDIS 5010.* A study of the neurological substrates, differential diagnosis, and management of motor speech disorders in adults and children. Apraxia of speech and classifications of the dysarthrias, localization of lesion, and neuromotor basis of dysfunction will also be discussed. Neurologic diseases and lesions commonly associated with motor speech disorders will be identified. Treatment efficacy issues are researched.

CDIS 5040. Adult Language Disorders (3 credits) — *Prerequisite: CDIS 5010.* A study of the clinical characteristics of aphasia and related communication disorders in adults with emphasis on differential diagnosis and treatment. An information-processing model provides a theoretical basis for treatment. Neuroanatomy and associated neurological symptoms are included. Treatment efficacy issues are researched.

CDIS 5045. Dysphagia (3 credits) — *Prerequisite: CDIS 5010.* A study of the differential diagnosis and treatment of dysphagia in adults and children with a focus on neuroanatomy and neurophysiology. Assessment with a clinical bedside exam and videofluoroscopy with emphasis on interpretation of radiographic studies (modified barium swallow). Neurologic diseases and lessons commonly associated with dysphagia will be identified. Team management of care is discussed. Treatment efficacy issues are researched.

CDIS 5070. Voice Disorders (3 credits) — A study of etiology, evaluation, and management of vocal pathologies encountered in children and adult clients. Normal voice production and voice disorders are studied from a voice-science perspective involving physiological investigation using both clinical and instrumentation techniques. Special needs of school-age children, laryngectomy patients, clients with psychogenically based voice problems and professional voice users are presented. Vocal diversity among multicultural populations is discussed.

CDIS 6100. Instrumentation and Acoustic Measurement (3 credits) — This course provides the basics of electronic and digital signal generation. Information pertaining to equipment used for calibration and measurement of acoustic and electric signals is applied to uses in the audiologic clinic and the hearing science lab.

CDIS 6115. Audiologic Evaluation I (3 credits) — An in-depth study of tests and topics that comprise the clinical domain of audiology. Such material includes audiometric standards, calibration, routine clinic protocols, immittance testing, as well as behavioral and physiological assessments of nonorganic hearing loss.

CDIS 6140. Amplification Systems I (3 credits) — A study of hearing aids, related acoustics, hearing aid selection/fitting procedures, verification of performance measures, and troubleshooting. Demonstrations and laboratory activities are included.

CDIS 6141. Amplification Systems II (3 credits) — *Prerequisite: CDIS 5140/6140.* This class is a study in advanced hearing aid technologies including implantable hearing aids, cochlear implants, and the strategies used to select and verify such fittings.

CDIS 6142. Amplification Systems III (3 credits) — *Prerequisite: CDIS 5140/6140, 5141/6141.* This class examines the most recent innovations in hearing aid technology including digital and programmable amplifying systems. Practical experience with devices and fitting strategies that minimize the effects of noise and their verification in the clinic will be prioritized.

CDIS 6145. Pathologies of the Auditory System (3 credits) — A study of pathological conditions that affect the ear and the sense of hearing. Topics include embryological development and identification of congenital syndromes linked to hearing loss, post-natal maturation, and pathologies affecting the pediatric patient, the effects of aging, and associated adventitious hearing loss.

CDIS 6150. Psychoacoustics and Hearing Science (3 credits) — *Prerequisite: Advanced Graduate Standing.* An in-depth examination of psychoacoustics, specifically the physiological and psychological processes that produce the sensation of hearing. The class will result in a greater appreciation of the effectiveness, as well as the shortcomings, of clinical audiology procedures.

CDIS 6160. Audiologic Evaluation II (3 credits) — *Prerequisite: CDIS 5115.* A study of advanced audiologic techniques including multifrequency tympanometry, acoustic reflex studies, tests for pseudohypacusis, and special tests employing speech stimuli. Imaging techniques for structure (e.g., CT scans, MRI) and for function (e.g., PET, EEG) are discussed.

CDIS 6180. Pediatric Audiology (3 credits) — A study of hearing loss and its etiology in children, the development of auditory behavior, and the techniques and skills utilized for auditory assessment and management of children with auditory disorders.

CDIS 6195. Electrophysiology (3 credits) — An in-depth study of electrophysiological procedures including both vestibular function tests (electronystagmography) and early and late auditory evoked potentials (electrocochleography, brainstem auditory evoked response, middle latency auditory evoked response, late auditory evoked response, and the cognitive responses.)

CDIS 6196. Electrophysiology II (3 credits) — *Prerequisite: CDIS 5195/6195.* A study of the advanced audiological diagnostic techniques used for Electric and Magnetic assessment of the auditory system, including ABR, Brain Mapping, AMLR, ALR, P3000, MMN, ENOG, SSER, and VER.

CDIS 5200. Speech-Language Pathology in the Public Schools (3 credits) — *Prerequisite: CDIS 5015.* A study of the organization and administration of speech-language services in the schools with emphasis on evaluation and treatment strategies for school-aged language disorders and learning disabilities.

CDIS 5205/6205. Speech-Language Pathology for Audiology Students (3 credits) — This course presents an overview of speech and language development and communicative disorders in pediatric and adult populations for audiologists. The course provides a foundation in normal speech and language milestones, screening procedures, characteristics of individuals with communicative disorders and treatment approaches pertaining to the screening and referral of audiology patients for speech and language services.

CDIS 5210. Communication Problems of the Aging (3 credits) — *Prerequisite: CDIS 5040.* A review of the socio-emotional, perceptual, physical, and cognitive changes associated with aging that affect communicative skills.

CDIS 5240. Pediatric Organic Disorders (3 credits) — *Prerequisite: CDIS 5015.* A study of the genetic, developmental, dental, surgical, psychosocial, audiologic, and speech-language aspects of children with organic pathologies such as craniofacial conditions, autism and mental retardation. Assessment and treatment issues for these populations are covered. The course describes the speech-language pathologist's role as a member of a multidisciplinary team.

CDIS 5260. Seminar in Intervention Issues (3 credits) — *Prerequisite: CDIS 5015.* An examination of current research and theoretical issues pertaining to intervention practices in childhood communicative disorders with an emphasis on infant-toddler intervention strategies. The course explores the works of Vygotsky as they apply to intervention with language impaired individuals.

CDIS 5270. Augmentative Communication (3 credits) — *Prerequisites: CDIS 5015 and 5040.* A study of assistive communicative devices utilized by individuals with severe communicative impairments due to physical, sensory or motor impairments. Emphasis on the strategies employed to assess the appropriateness of communicative devices and utilized these devices in communicative situations.

CDIS 5275. Dysphagia Laboratory (1 credit) — *Prerequisite or concurrent: CDIS 5045.* This class provides practical experience in clinical and radiological assessment and treatment approaches for individuals with swallowing impairments. Discussions of ethical issues and counseling procedures associated with dysphagia management will be discussed.

CDIS 5285. Voice Laboratory (1 credit) — *Prerequisite or concurrent: CDIS 5070.* This course presents a study of instruments used in the diagnosis and treatment of voice disorders include laryngeal function, speech intensity, fundamental frequency, sound spectrography and velopharyngeal function. The diagnosis, management and rehabilitation of the laryngectomy and tracheostomy patient will be addressed.

CDIS 5290. Advanced Adult Neurogenic Cognitive Communicative Disorders (3 credits) — *Prerequisite: CDIS 5040.* An

advanced seminar focused on three topics: communicative and cognitive disorders following right hemisphere damage (RHBD), traumatic brain injury (TBI), and dementing progressive neurological diseases. Emphasis is on in-depth understanding of the nature of the disorders and their neurological correlates, the diagnostic tools for assessing the disorders, and critical review of treatment procedures used to remediate the disorders.

CDIS 5295. Counseling in Communicative Disorders (3 credits) — *Prerequisite: Graduate Standing* Introduction for speech-language pathologists and audiologists to issues related to child and adolescent development, childhood motivations for misbehavior, and the individual and family counseling interventions that can support speech therapy and audiology practices.

CDIS 6300. Rehabilitative Audiology for Children (3 credits) — A study of current methods, techniques, and models for (re)habilitation of children with hearing impairment including central auditory processing disorders. Discussions of hearing aid orientation, counseling, speech reading, auditory training, cochlear implants, and other relevant techniques used in the management of pediatric hearing disorders.

CDIS 6310. Rehabilitative Audiology for Adults (3 credits) — A study of the rehabilitative processes and procedures used with the adult hearing impaired population.

CDIS 6320. Auditory Processing Disorders (3 credits) — *Prerequisite: Advanced graduate standing* A study of the bases and diagnostic procedures involved in the evaluating of auditory processing disorders. Practical experience in assessment is included in the course.

CDIS 6330. Auditory Measures of Speech Perception (3 credits) — An analysis of the acoustic properties of speech and an overview of prominent theories of speech perception.

CDIS 6340. Audiology Clinical Practice Management (3 credits) — *Prerequisite: Advanced graduate standing* An examination of personal, organizational, economic, legal, and ethical issues of autonomous audiology practice. Emphasis is on the managerial role of the audiologist as these issues relate to various models of audiological service delivery.

CDIS 6360. Vestibular Assessment (3 credits) — This course addresses the anatomy and physiology of the normal vestibular system. Administration and interpretation of the basic vestibular test battery including electronystagmography will be studied in the context of basic audiological function and diagnosis.

CDIS 6361. Advanced Vestibular Assessment and Rehabilitation (3 credits) — *Prerequisite: CDIS 5360/6360.* This course addresses the administration and interpretation of computerized dynamic posturography and rotational testing. Vestibular adaptation principles and vestibular rehabilitation therapy techniques are linked to measures of treatment outcome measures and an understanding of balance problems in special populations.

CDIS 6370. Hearing Conservation (3 credits) — This course will provide practical applications of the components included in comprehensive hearing conservation programs including: measurement of acoustic energy in a variety of industrial settings, measurement of hearing for occupationally and recreationally noise-exposed individuals, and the provision of education regarding hearing loss and protection to a variety of populations.

CDIS 6390. Medical Audiology (3 credits) — This course provides for audiologists information pertaining to the medical aspects of clinical practice. Topics covered include medical management of hearing and balance disorders, pharmacological agents, aging, universal precautions, and cerumen management.

CDIS 5400/6400. Research Methods in Communicative Disorders (3 credits) — A study of research design and methods used in descriptive and experimental research in speech and hearing science. Review of descriptive and inferential statistics.

CDIS 5410/6410. Audiology Seminar (3 credits) — *Prerequisite: CDIS 5400.* A seminar focusing upon contemporary topics in the diagnosis and treatment of hearing loss, tinnitus, and vestibular disorders. Students will complete and present an original project at a pre-approved research forum.

CDIS 5510. Audiology Clinic for Speech-Language Pathologists (1 credit) — On- and off-campus supervised clinical practica, individually structured for speech-language pathology students, providing

evaluation and treatment experiences with auditory disorders of children and adults.

CDIS 6520. Audiology Clinic (3 credits) — A series of on- and off-campus supervised clinical practica, individually structured for the student, providing evaluation and treatment experiences with auditory disorders of children and adults. Repeatable.

CDIS 6590. Externship: Audiology (6-9 credits) — *Prerequisite: CDIS 5520 and permission of the audiology faculty.* A comprehensive off-campus supervised clinical practicum experience, individually structured for the student, providing evaluation and treatment experiences with auditory disorders of children and adults. Repeatable.

CDIS 5610. Speech-Language Pathology Clinic for Audiologists (1 credit) — On- and off-campus supervised clinical practica, individually structured for the audiology students, providing clinical evaluation and treatment experiences with communicative disorders of children and adults.

CDIS 5620. Speech-Language Pathology Clinic: Child Evaluation/Treatment (3 credits) — *Prerequisite: CDIS 5015.* Supervised experience in the assessment and treatment of children with speech and language disorders.

CDIS 5640. Speech-Language Pathology Clinic: Adult Evaluation/Treatment (3 credits) — *Prerequisite: CDIS 5010 and CDIS 5040.* Supervised experience in the assessment and treatment of adults with speech and language disorders.

CDIS 5670. Speech-Language Pathology Clinic: Advanced (3 credits) — *Prerequisite: Successful completion of two semesters of supervised clinical practica and permission of the speech-language pathology faculty.* On- and off-campus supervised clinical practica, individually structured for the student, providing clinical evaluation and treatment experiences with communicative disorders of children and adults. Repeatable.

CDIS 5690. Externship: Speech-Language Pathology (6-9 credits) — *Prerequisite: Successful completion of three semesters of supervised clinical practica and permission of speech-language pathology faculty.* A concentrated off-campus supervised clinical practicum, individually structured for the student, providing clinical evaluation and treatment experiences with communicative disorders of children and adults. Repeatable.

CDIS 5900. Independent Study (3 credits) — Permission of the instructor and the department chair required. Independent study of literature or research appropriate to the areas of concern to an individual student is arranged.

CDIS 5960. Thesis (3-6 credits)

CDIS 5980. Special Topics in Communication Disorders (1-6) (variable)

CDIS 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Chemistry Course Listing (CHEM) Courses for Graduate Students Only

CHEM 5010. Graduate Seminar (1 credit) — Presentation of current topics of interest by advanced students, faculty, or visiting speakers. A student taking the course for credit is required to present a seminar topic subject to departmental approval. The course may be repeated once for credit. All graduate students and others are strongly encouraged to attend and to participate.

CHEM 5110. Advanced Inorganic Chemistry I (3 credits) — *Prerequisite: CHEM 4110 or its equivalent.* Advanced study in theoretical and descriptive inorganic chemistry, with emphasis on bonding theories, periodic table correlations, and reactions of important inorganic compounds.

CHEM 5120. Advanced Inorganic Chemistry II (3 credits) — *Prerequisite: CHEM 4110 or its equivalent.* A study of physical methods used in identifying and studying the structures of inorganic compounds.

CHEM 5142. Reaction Mechanisms of Coordination Chemistry (3 credits) — *Prerequisite: CHEM 4110 or its equivalent.* Reaction patterns of coordination compounds and techniques used in studying reaction mechanisms with applications in areas of catalysis and bioinorganic reactions.

CHEM 5210. Advanced Analytical Chemistry I (3 credits) — *Prerequisites: One year of analytical chemistry.* An advanced treatment of acid-base, solubility, oxidation-reduction, and complexometric equilibria and their applications in diverse fields. In addition to traditional methods of calculations, and graphical methods, the use of modern spreadsheet software is also included.

CHEM 5220. Advanced Analytical Chemistry II (3 credits) — *Prerequisites: One year of analytical chemistry.* The course provides a survey of the majority of the modern methods of instrumental analysis including spectrometric, electrochemical, and separation techniques. Important topics in each of these areas will also be discussed in-depth.

CHEM 5450. Advanced Laboratory in Chemistry (1-4 credits) — *Prerequisite: Dependent upon subject matter.* Consultation with the instructor is required. Advanced laboratory practice in inorganic, analytical, organic, or physical chemistry, depending upon the interest of the student. Individual studies will be mutually agreed upon by faculty and student. Students receive "pass" or "fail" grade.

CHEM 5510. Advanced Organic Chemistry (3 credits) — *Prerequisites: One year of organic chemistry.* A survey of modern organic reactions and their applications in the synthesis of organic compounds.

CHEM 5541. Organic Reaction Mechanisms (3 credits) — *Prerequisites: One year of organic chemistry; one year of physical chemistry.* A study of the use of transition state theory, kinetics, isotope effects, and stereochemistry as applied to reaction mechanisms. Pericyclic, nucleophilic, electrophilic, elimination, and carbonyl reactions will be covered.

CHEM 5710. Chemical Thermodynamics (3 credits) — *Prerequisite: One year of physical chemistry requiring calculus.* An in-depth study of fundamental principles and applications of chemical thermodynamics.

CHEM 5741. Chemical Kinetics (3 credits) — *Prerequisite: One year of physical chemistry requiring calculus.* Experimental and theoretical methods in studying reaction rates and reaction mechanisms, both classical and current.

CHEM 5743. Quantum Chemistry (3 credits) — *Prerequisite: One year of physical chemistry requiring calculus.* An introduction to quantum mechanics with emphasis on the concepts and mathematical methods closely related to chemistry.

CHEM 5950. Research in Chemistry (1-2 credits) — *Prerequisite: Permission of the chair of the department.* A laboratory study on a specific problem entailing original investigation.

CHEM 5960. Thesis in Chemistry (1-3 credits) — *Prerequisite: Permission of the chair of the department.* The incorporation of methods used, literature survey involved, and the findings associated with the problem undertaken in CHEM 5950 into a thesis.

CHEM 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

CHEM 5989-5999. Cooperative Education (1-3 credits) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Businesses, industries, and government agencies provide opportunities for planned and supervised work assignment. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value and students receive compensation as full-time employees.

Courses Co-listed in Undergraduate Catalog

All graduate courses are offered on a rotation basis. All Core courses will be repeated at least every three years.

CHEM 5547. Molecular Orbital Theory for Organic Chemistry (3 credits) — *Prerequisites: One year of organic chemistry; one year of physical chemistry.* Huckel Molecular Orbital theory, the PMO and FMO methods and their applications to chemical reactivity, aromaticity and antiaromaticity, pericyclic reactions, improvements and extensions of the Huckel theory, molecular mechanics, introduction to semiempirical, *Ab Initio* and Density Functional methods.

CHEM 5817. Introduction to Industrial Chemistry (3 credits) — *Prerequisites: One year of organic chemistry.* A course designed to bridge the gap between basic chemical science and chemical engineering.

CHEM 5957. Special Topics in Chemistry (2-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in chemistry. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Criminal Justice & Criminology (CJCR) Courses Co-listed in Undergraduate Catalog

CJCR 5007. Correctional Counseling (3 credits) — An overview of counseling methods, principles, and procedures of therapeutic techniques, and processes for use in various correctional environments.

CJCR 5027. Media and Crime (3 credits) — Examination of relationship between media and crime, with special emphasis on television. Course content examines both reporting and non-news media content relevant to crime and criminal justice system, the study of audiences and effects; different theories about media dissemination of news, opinion, information, and entertainment.

CJCR 5500. Topical Seminar (3 credits) — *Prerequisites: Dependent on subject matter.* Selected topics of current interest in criminal justice and criminology. May be repeated for credit per Graduate School rules. Consultation with the instructor is recommended before enrollment.

CJCR 5957. Topic in Criminal Justice (3 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in criminal justice and criminology. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Courses for Graduate Students Only

CJCR 5000. Criminological Theory (3 credits) — Examination of major theoretical areas within criminology, including social control theory, strain theory, and social learning theory. Contemporary theoretical positions will also be covered such as critical theories and life-course theory.

CJCR 5005. Ethics and Social Justice (3 credits) — Exploration of social and criminal justice ethics as it relates to crime and justice. Issues addressed include punishment, moral and legal responsibility of citizens, and corruption.

CJCR 5010. The American System of Justice (3 credits) — An examination of the theoretical and ideological foundations of criminal justice in America. Emphasis on historical perspectives competing models of justice. Analysis of criminal justice from a systemic framework.

CJCR 5020. American Policing (3 credits) — Survey of theory and research on policing in America. Study of the basic problems faced by the police and alternative perspectives for addressing those problems.

CJCR 5026. The Death Penalty in America (3 credits) — Various theoretical, ethical, moral, and empirical issues surrounding capital punishment will be explored. Students will be exposed to conflicting points of view regarding race, gender, class and the death penalty. A critical examination of all sides of this debate will be undertaken.

CJCR 5030. Issues in Correctional Treatment (3 credits) — Survey and analysis of contemporary correctional treatment processes, including policy formulation and program administration.

CJCR 5031. American Corrections (3 credits) — Examination of issues in corrections process, policies, trends, the goals of contemporary corrections, and the efficacy of correctional programs. Issues in corrections management, correctional case law, and political realities will also be addressed.

CJCR 5040. Law, Society, and Criminal Justice (3 credits) — Definition and philosophies of law, effect of law on society and the criminal justice system. Specialized topics: functions of criminal law, philosophical perspectives of justice and liberty, objectives of law.

CJCR 5050. Seminar in White-Collar Crime (3 credits) — An examination of the concept of white-collar crime, including causes, detection, and treatment of offenders.

CJCR 5070. Juvenile Justice and Delinquency (3 credits) — Comprehensive examination of the nature of American delinquency and the juvenile justice system. Involves critical examination of the history of juvenile institutions. Dominant theories of delinquency, and recent developments in the field are explored.

CJCR 5580. Violence: The American Experience (3 credits) — Examination of the various issues surrounding violence; exploration of the roots of violent behavior. Theoretical perspectives will be analyzed, with emphasis on biological, psychological, and sociological explanations.

CJCR 5800. History of Criminological Theory (3 credits) — Examination of competing explanations of crime throughout history to include preclassical, classical, neoclassical, positivist, and social reaction schools of thought. Assumptions of each perspective will be analyzed. Major theories and the theorists from each school will be analyzed.

CJCR 5850. Research Design in Criminology (3 credits) — *Prerequisite: Undergraduate statistics course, CJCR 3000 or equivalent.* Focus on research methodology as it relates to criminological inquiry. Issues in sampling, variable operationalization and measurement and research design will be covered.

CJCR 5900. Special Problems in Criminal Justice (1-3 credits) — *Prerequisite: Permission of the instructor.* Supervised study of research focusing on a selected problem in the field.

CJCR 5950. Quantitative Methods in Criminology (3 credits) — *Prerequisite: Undergraduate statistics course, CJCR 3000 or equivalent.* Introduction to statistical analysis and modern statistical applications using computer software. Hypothesis testing, measures of association, and the general linear model will be covered. Special emphasis will be placed on the role of statistical analysis in criminology.

CJCR 5960. Thesis (3 credits)

CJCR 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Computer and Information Science Course Listing (CSCI) Courses for Graduate Students Only

CSCI 5100. Computer Architecture: Advanced Concepts (3 credits) — *Prerequisite: CSCI-4717 or 5717 or consent of the instructor.* A detailed view of recent advances in computer architecture. Topics include: shortcomings of the classic Von Neumann model; language-directed architectures; object-oriented architectures; data-flow architectures; RISC architectures; parallel processing; basic classification schemes (SISD, SIMD, MISD, MIMD, etc.); pipeline, vector, and array processing supercomputers; special-purpose architectures; associative memory and associative processors; microprogramming concepts; fault-tolerant computers; interrupts and I/O processing; computer systems performance measurement and evaluation. Laboratory use of the computer in designing, coding, debugging, and executing programs is an integral part of the course. (variable)

CSCI 5150. Topics in Distributed Systems (3 credits) — *Prerequisite: CSCI-4727 or 5727 or consent of the instructor.* Also recommend: programming experience in C/C++, and a prior course in networking and data communications. Issues in the design and implementation of distributed systems. Topics include the importance of distributed systems; salient features of distributed systems architectures; characteristics of distributed computations; mechanisms for activating computations, message-passing, synchronization, and scheduling in distributed systems; distributed file systems; distributed shared memory; cooperation and consensus; fault tolerance; and replicated data management. (fall, alternate years)

CSCI 5200. Software Systems Engineering (3 credits) — *Prerequisite: Admission to the computer science master's degree program.* Permission of the instructor must be obtained for non-computer science graduate students. This course exposes students to the development of software systems at the very highest level. It introduces the system aspect of development and the related trade-offs required when software and hardware are developed together. An overview of software development life cycles is presented. The course exposes students to requirements analysis techniques to develop a system from those requirements. (fall)

CSCI 5210. Specification of Software Systems (3 credits) — *Prerequisites: CSCI-2210 and MATH-2710 or consent of instructor.* Specification occurs at many levels in software engineering. High-level specifications often attempt to capture user requirements, while detailed functional specifications often describe implementation decisions. This course covers several different models of and languages for specification of software systems. The role of documents and standards is also covered. (variable)

CSCI 5220. Software Verification and Validation (3 credits) — *Prerequisites: CSCI-2210 and MATH-2710 or consent of the instructor.* This course addresses the theory and practice of ensuring high-quality software products. Topics covered include quality assessment, proof of correctness, testing, and limitations of verification and validation methods. (variable)

CSCI 5230. Software Project Management (3 credits) — *Prerequisites: Admission to the master's program. Co-requisite: CSCI 5200.* This course deals with process considerations in software systems development. It provides advanced material in software project planning, monitoring and controlling mechanisms, leadership, and team building. (spring)

CSCI 5250. Database Design (3 credits) — *Prerequisite: An undergraduate database management course, or consent of the instructor.* Database design serves as a unifying mechanism for the seemingly diverse fields of data semantics, database management software, and physical design. Different methods for expressing designs at appropriate levels of abstraction are covered. Evaluation criteria for design assessment are introduced and design methods are evaluated according to these criteria. This course attempts to integrate theoretical and practical aspects of database design. (spring)

CSCI 5300. Principles and Applications of Software Design (3 credits) — *Prerequisites: CSCI 5200.* Students should have a good working knowledge of programming in-the-small. Experience in designing small systems is helpful. Design is a central activity of software development. This course covers several different methods and languages for expressing designs. Criteria for evaluating designs are introduced, and design methods are evaluated according to these criteria. The concepts of design verifiability and reusability are stressed. (spring)

CSCI 5360. Network and System Administration (3 credits) — *Prerequisites: CSCI 4417/5417.* Selected intermediate-level topics in network and system administration. Topics include protocols and tools for network management; NAT, VPNs, and proxy servers; scripting techniques for automating system administration; performance tuning; LDAP administration; cluster administration; and miscellaneous standards and technologies.

CSCI 5460. Network and Information Security (3 credits) — *Prerequisite: CSCI-4417/5417.* A survey of concerns related to system security in a networked environment. Topics include threats to system security; common software vulnerabilities; tools for attaching system security; tools for defending system security, including cryptographic utilities; recovering from security episodes; and the ethics of incident response.

CSCI 5520. Research Methods in Computer Science (1 credit) — *Prerequisite: Admission to the computer science master's program.* An introduction to academic research, as conducted in the computer sciences. Topics include

forces shaping CS research, types of research, quality in research, avenues for disseminating research, resources for locating published research, and expectations for theses and project reports. Students will be required to complete an application for [at least] one of the capstone sequences: i.e., one of software development projects to be offered in the next term; or a proposal for one of the thesis topics set by the department's faculty. (fall)

CSCI 5550. Directed Research 1 (3 credits) — *Prerequisite: CSCI 5500 and consent of advisory committee chair.* In this course, the student, in consultation with the student's advisory committee chair, will conduct research on the problem suitable as a topic for a master's thesis. Successful completion of this course should prepare the student to begin writing a master's thesis. The student will be required to give an oral presentation of results obtained in this course to the graduate faculty. Course content and deliverables are defined by a written agreement signed by the student and the student's advisory committee chair. This agreement will be kept on file by the department with the student's graduate records. (every semester)

CSCI 5551. Directed Research 2 (3 credits) — *Prerequisite: CSCI 5550.* The student, in consultation with the student's advisory committee chair, will continue the research undertaken in CSCI 5550 and begin writing of a thesis. An oral presentation to the graduate faculty is required. Content and deliverables are defined by a written paper. (every semester)

CSCI 5610. Formal Languages and Computational Complexity (3 credits) — *Prerequisite: MATH-2710, CSCI-2210 or consent of the instructor.* Problem-solving is a fundamental aspect of computer science. This course teaches students how to reduce a computational problem to its simplest form and analyze the problem to determine its inherent computational complexity. Topics include formal languages and automata theory, Turing machines, computational complexity, and the theory of NP-completeness. (spring)

CSCI 5620. Analysis of Algorithms (3 credits) — *Prerequisite: differential and integral calculus, discrete structures, data structures.* This course covers basic techniques for analyzing the complexity of algorithms. It describes the design and analysis of a number of algorithms for solving important problems which arise often in applications of computer science, including sorting, selection, graph theory problems (e.g., shortest path, graph traversals), string matching, dynamic programming problems, NP-complete problems. (variable)

CSCI 5710. E-Commerce Implementation (3 credits) — *Prerequisite: Admission to the computer science master's degree program.* This course will give students the opportunity to become conversant in the major topics surrounding business-to-consumer (b2c) electronic commerce. Students will also gain experience implementing a large scale b2c Internet application.

CSCI 5720. Enterprise and E-Business Integration (3 credits) — *Prerequisite: Admission to the computer science masters degree program.* This course will give students the opportunity to become conversant in the major topics surrounding business-to-business (b2b) electronic commerce and enterprise application integration. Students will also gain experience implementing a b2b and enterprise application components.

CSCI 5857. User Interface Programming (4 credits) — *Prerequisites: CSCI 1250 and 1260, or equivalent.* The concepts and programming techniques used to create applications with modern user interfaces. The course will focus on current technology as it applies to a modern operating system and software development tools. The course will focus on the user interface rather than underlying applications. Course will not count toward graduate degree requirements in Computer Science.

CSCI 5900. Independent Study (1-9 credits) — (every semester)

CSCI 5910. Software Development Project I (3 credits) — *Prerequisites: Completion of the precapstone sequence and acceptance of Capstone Project Application by the graduate committee.* Students who are conditionally admitted to the graduate program must remove all conditions before enrolling in this course. The Design Studio course sequence (CSCI-5910, CSCI-5920, CSCI-5930) provides an opportunity for students to demonstrate their ability to apply the knowledge and skills gained in other courses to synthesize a solution to a significant, realistic and ultimately practical problem. Students are expected to complete all three courses consecutively in the same academic year (including summer session). The planning phase of the project will be conducted in this course. A planning document describing the various subtasks that will be carried out, their deadlines, configuration management, testing and evaluation procedures will be produced. (summer)

CSCI 5920. Software Development Project II (3 credits) — *Prerequisites: CSCI-5300 with a grade of B or better and completion of 5910 during the previous spring with a grade of B or better.* The detailed design and implementation of the project begun in CSCI-5910 will take place during this course. This work will be accomplished by the project teams often in close collaboration with the users of the proposed system and with the instructor. The instructor will assume the role of the master designer in a master/apprentice relationship. (fall)

CSCI 5930. Software Development Project III (3 credits) — *Prerequisite: CSCI-5920.* The evaluation and revision of the project which was implemented in CSCI-5920 will take place during this course (a ten-week summer session). This is the most important phase of the project and teaches students to be critical of their own work and to be realistic about their plans. The main purpose of this phase is to determine to what degree the original plans were realized and to discover the shortcomings of the production process and the end product. It also includes an analysis of possible improvements and some attempts to revise the product accordingly. The end result of this work is a document of the character of a master's thesis that describes an analysis of various project aspects rather than just system design. Each student shall take a final oral examination, in the spirit of a master's thesis defense, in which the student will be expected to articulate to a faculty jury what they have learned as part of the design studio project process. (spring)

CSCI 5960. Thesis in Computer and Information Sciences (3 credits) — *Prerequisite: CSCI 5551, completion of the pre-capstone courses for the student's concentration, and consent of student's advisory committee chair.* A major research project is conducted and reported according to university and departmental thesis standards. (every semester)

CSCI 5989-5999. Cooperative Education (1-3, 1-3 credits) — (every semester)

CSCI 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

CSCI 5157. Interactive Graphics (3 credits) — *Prerequisites: CSCI-2210 and MATH-2250 or permission of the instructor.* Point plotting, vector generation, interactive techniques, two- and three-dimensional transformations, perspective depth, hidden line elimination, shading, colors, and mapping. Development and use of graphics software packages. Laboratory use of the computer will be an integral part of the course. (variable)

CSCI 5217. Ethical Issues in Computing (3 credits) — *Prerequisite: CSCI 3250.* A study of the ethical issues facing computer users and computer professionals, including an examination of the techniques for the analysis and resolution of these issues consistent with standards of the computing profession. (spring)

CSCI 5317. Law and the Internet (3 credits) — *Prerequisite: Completion of 60 credits or approval of the instructor.* A multi-disciplinary overview of the relationship between the Internet and the laws of privacy, right to accurate information, access to information, first amendment, patents, trade secrets, trademarks and unfair business practices, jurisdiction, e-commerce, telecommunication, and antitrust.

CSCI 5417. Introduction to System Administration (3 credits) — *Prerequisite: CSCI 2150 and 2235.* A survey of concerns related to management and design of local area networks. Topics include the practice of system administration; overview of network operating systems; best practices for system administration; fundamentals of Unix and Windows system administration; routing; network design; and remote network access. The course will provide hands-on experience with setting up and administering Unix and Windows network operating systems.

CSCI 5517. Essentials of Multimedia (3 credits) — *Prerequisites: Senior standing or permission of instructor.* A study of the basic elements of multimedia including text, graphic art, sound, animation, and video. This course will cover the methods of creating each of the elements of multimedia, and how to combine them into meaningful units for maximum effect. The instruction will be interactive and project-oriented. Teamwork and good design will be emphasized.

CSCI 5527. Computer-Based Authoring Systems (3 credits) — *Prerequisites: Senior standing or permission of instructor.* A survey of methods in computer-based authoring systems. This course will cover the design, implementation, and evaluation of computer-based training modules using one or more authoring systems. Emphasis will be on the use of hypermedia and multimedia tools, analysis of instructional goals and their evaluation, and using the World Wide Web for delivery of instruction. Laboratory experiences and group projects will be integral parts of this course.

CSCI 5717. Computer Architecture (3 credits) — *Prerequisite: CSCI-2210, CSCI-2160, or consent of the instructor.* Does not apply toward credit for computer science M.S. degree. Computer systems are viewed as consisting of a series of layers or levels, one on top of the other. Topics of computer architecture are presented, including microprogramming, stack computers, parallel computers, pipeline processing, multiprocessors, virtual storage, cache storage, addressing schemes, I/O and interrupt structure. Laboratory use of the computer in designing, coding, debugging, and executing programs is an integral part of the course. (fall)

CSCI 5727. Operating Systems (3 credits) — *Prerequisite: CSCI-2210, CSCI-2160.* Does not apply toward credit for computer science M.S. degree. The study of computer operating systems, the primary resource managers of computer hardware. The main features provided by operating systems, including process management, storage management, processor management, and auxiliary storage management are studied in detail. Related topics of networking and security are introduced. Case studies of representative commercial operating systems highlight the main features common to all operating systems. Laboratory use of the computer is an integral part of the course. (spring)

CSCI 5957. Special Topics in Computer Science (1-6 credits) — *Prerequisite: Permission of the instructor.* Special topics not covered in other courses. May be repeated for credit with departmental approval if the topics are significantly different. (variable)

Curriculum and Instruction Course Listing (CUAI) Courses for Graduate Students Only

CUAI 5110. Elementary Curriculum (3 credits) — *Prerequisite: EDFN 5950.* This course is designed to investigate the current issues and trends related to curriculum development in the early elementary grades (K-4). Emphasis is placed on developing teachers' leadership skills for initiating positive change in the school curriculum.

CUAI 5111. Curriculum and Instruction Workshop (1-6 credits) — (Periodically)

CUAI 5113. Instructional Excellence in Mathematics (K-8) (3 credits) — *Prerequisite: EDFN 5950.* This course is designed to integrate research on the teaching and learning of elementary school mathematics and to address current issues and topics in grades K-8. Students will be required to design an action research project for this course.

CUAI 5114. Instructional Excellence in Science (K-8) (3 credits) — *Prerequisite: EDFN 5950.* This course provides elementary teachers (K-8) with innovative approaches to organizing, teaching, and assessing science learning. Emphasis is placed on understanding how students learn science and strategies that enable students to have successful learning experiences.

CUAI 5115. Instructional Excellence in Social Studies (K-8) (3 credits) — *Prerequisite: EDFN 5950.* This course is designed to investigate the current trends and issues that affect methodology and content in a social studies curriculum (K-8).

CUAI 5199. Teaching in a Diverse Society (3 credits) — Through a broadening of the students' knowledge base on issues related to diversity, this course will prepare teachers for the changing demographics of U.S. society. The course will examine and synthesize theories of teaching and how

they can be applied to diverse student populations. This course will enable students to become effective action researchers.

CUAI 5210. Curriculum Development (3 credits) — Study of the total school curriculum (K-12) with emphasis on development and organization.

CUAI 5215/6215. Documenting the Scholarship of Teaching I (3 credits) — *Corequisite: ELPA 6555.* Documenting the Scholarship of Teaching I has been designed to address theoretically and pragmatically the process of collecting, recording, and reflecting on teaching as a scholarly, creative, and research activity contributing to the knowledge base in the discipline of education. The coursework includes reflection on the nature of scholarship, questions about accountability, examination of the task of improving pedagogical activities, and finding the best ways to record and evaluate teaching and learning.

CUAI 5216/6216. Documenting the Scholarship of Teaching II (3 credits) — *Prerequisites: CUIAI 5215 and 6555. Corequisite: ELPA 6556.* Documenting the Scholarship of Teaching II has been designed to address the development and presentation for the professional portfolio. The coursework includes identification, selection and reflection about artifacts, mapping the plan for the portfolio, self-assessment of artifacts and design, designing, selecting and reflecting about appropriate media and technology, putting the portfolio together, and presenting the portfolio.

CUAI 5220. Secondary School Curriculum (3 credits) — Study of the secondary school curriculum (7-12).

CUAI 5415. Block I: Communications (6 credits) — *Prerequisites: Admission to Teacher Education or permission of MAT coordinators; EDFN 5405 and EDFN 5411. Corequisite: CUIAI 5419.* This course focuses on the objectives, materials, and techniques for teaching reading, writing, listening, and speaking in grades K-8 with emphasis on planning, implementing, and evaluating an integrated program. This course incorporates the analysis and evaluation of children's literature, including multicultural literature, and its use in language arts and across the curriculum.

CUAI 5416. Block II: Reasoning (6 credits) — *Prerequisite: Admission to Teacher Education or permission of MAT program coordinators; Corequisites: CUIAI 5421 and CUIAI 5420.* The reasoning methods block is an integrated set of learning experiences that encompasses content, process skills, and issues drawn from mathematics, science, and social studies. The course is designed to explore common and unique characteristics of these subjects as they are taught in 1-8 schools.

CUAI 5419. Block I: Communications Field Experience (1 credit) — *Prerequisites: Admission to Teacher Education or permission of MAT coordinators; EDFN 5405 and EDFN 5411. Corequisite: CUIAI 5415.* This course is a school-based field experience that focuses on methods used to teach a holistic language arts program. In this experience students will learn to use teaching techniques that will permit the integrating of language arts components with children's literature as they cross the curriculum into varied content areas.

CUAI 5420. Elementary and Middle School Curriculum (K-8) (1 credit) — *Prerequisites: Admission to Teacher Education or permission of MAT program coordinators; CUIAI 5405 and CUIAI 5411. Corequisite: CUIAI 5421 and CUIAI 5416.* This course is designed to introduce students to the characteristics of both the elementary and middle school program. Students examine the structure and development of the changing nature of the early-grades (K-4) and middle-grades (5-8) curriculum.

CUAI 5421. Block II: Reasoning Field Experience (1 credit) — *Prerequisites: Admission to Teacher Education or permission of MAT program coordinators; CUIAI 5420. Corequisite: Enrollment in CUIAI 5416.* The reasoning field experience is a field-based course designed to give prospective teachers an opportunity to plan, teach, and develop educational materials for diverse student groups and instructional settings.

CUAI 5580. Enhanced Student Teaching for MAT (9 credits) — *Prerequisite: Completion of all methods courses and permission of advisor. Corequisite: Enrollment in EDFN 5400: Seminar in Issues, Problems, and Innovations in Education.* This course provides a supervised student teaching experience at the elementary (K-8) or secondary level.

CUAI 5900. Independent Study (1-6 credits)

CUAI 5910. Assessment Techniques in the Classroom (3 credits) — An introduction to assessment at the classroom level. Overview of models for planning and implementing classroom assessment projects.

Identification of effective classroom assessment techniques. Implementation, data collection, analysis and reporting of results, and classroom assessment projects.

CUAI 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

CUAI 5417. Secondary School Curriculum and Methodology (3 credits) — *Prerequisite: Admission to Teacher Education. Corequisite: Enrollment in CUIAI 4427/5427 Secondary School Curriculum and Methodology Field Experience.* This course focuses on teaching and learning in secondary schools and includes the study of curriculum and methodology suitable for a variety of life and learning styles. Offered fall and spring.

CUAI 5427. Secondary School Curriculum and Methodology Field Experience (1 credit) — *Prerequisites: Admission to Teacher Education. Corequisite: Enrollment in CUIAI 4417/5417 Secondary School Curriculum and Methodology.* This field experience provides students with a school setting to implement class activities. Students are required to spend 30 credits working primarily with one mentor and a single class of students. Offered fall and spring.

CUAI 5437. English as a Second Language (ESL) Assessment and Testing (2 credits) — This course is designed to equip participants with the knowledge and skills necessary to use multiple sources of information as they test and assess the English language proficiency of non-native speakers of English, place them for appropriate ESL and academic instruction, and assess their ongoing progress toward native-like proficiency and performance.

CUAI 5447. English as a Second Language (ESL) Reading and Instruction (2 credits) — This course is designed to equip participants with the knowledge and skills necessary to develop appropriate curricula and instructional activities to fit the reading needs of non-English language background students with limitations in English proficiency that negatively affect their comprehension of English in print.

CUAI 5457. English as a Second Language (ESL) Methods and Techniques (K-12) (2 credits) — *Prerequisites: CUIAI 4437/5437 and CUIAI 4447/5447.* This course explores pedagogical approaches to teaching Limited English Proficient (LEP) students in the K-12 arena. Some of the approaches to be explored are: the Natural Approach, Total Physical Response (TPR), Cooperative Learning, the Language Experience, Integrated Language Teaching, Whole Language, and the Cognitive Academic Language Learning Approach (CALLA).

CUAI 5467. English as a Second Language (ESL) Curriculum Development (K-12) (2 credits) — *Prerequisites: CUIAI 4437/5437 and CUIAI 4447/5447.* This course exposes K-12 practitioners to curricular strategies that have been field tested in K-12 classrooms and found to support student learning. The strategies under investigation were developed by teachers and researchers working together to provide an education to children beginning to learn English. Strategies were selected on the basis of their usefulness in making rigorous core curriculum meaningful to students whose knowledge of English might otherwise hinder their academic progress.

CUAI 5517. Math Methods for Early Childhood (3 credits) — *Prerequisites: Admission to Teacher Education and completion of all math requirements. Co-requisites: This course is to be taken with CUIAI 4527/5527 and 4537/5537.* This course is designed to explore current methodology and materials for teaching mathematics to PreK-4 early childhood students. Appropriate field experiences are required.

CUAI 5537. Integrated Field Experience for Early Childhood (1 credit) — *Prerequisites: Admission to Teacher Education and successful completion of undergraduate math and science requirements. Co-requisites: This course is to be taken with SCED 4527/5527 and CUIAI 4517/5517.* This course is a school-based course that builds on earlier field experience in the program and is connected to block of methods courses. Students will be expected to work 30 hours in schools and be involved with planning and implementing instruction for students of varying backgrounds and abilities in the areas of math and science.

CUAI 5547. Emergent Literacy: PreK-4 (3 credits) — *Prerequisite: Admission to teacher education.* This course is designed to provide undergraduate and graduate students with a foundation for teaching reading and other literacy competencies to children in pre-kindergarten through grade four. Emphasis is on developing and enlarging understanding of the reading process and the teaching of reading. Strategies and protocols for effective reading and writing instruction are presented.

CUAI 5957. Topics in ... (1-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in curriculum and instruction. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Digital Media Course Listing (DIGM) Courses for Graduate Students Only

DIGM 5146 Character Animation Graduate Laboratory (1 credit) — Experiments and practical exercises dealing with character animation, designed to reinforce and supplement concepts learned in Fundamentals of Character Animation. This lab is oriented specifically for the graduate student. Must be taken with DIGM 5147 Fundamentals of Character Animation.

DIGM 5616 Raster-Based Imaging Graduate Laboratory (1 credit) — Experiments and practical exercises in raster-based imaging, designed to reinforce and supplement concepts learned in DIGM 5617. This lab is oriented specifically for the graduate student. Must be taken with DIGM 5617 Advanced Raster-Based Imaging.

DIGM 5626 Motion Tools II Graduate Laboratory (1 credit) — This course must be taken with DIGM 5627 and will incorporate advanced-level laboratory exercises and explorations in digital video compositing.

DIGM 5636 Interaction Graduate Laboratory (1 credit) — Experiments and practical exercises dealing with scripting and interface design for interactive product production, designed to reinforce and supplement concepts learned in Advanced Interaction. This lab is oriented specifically for the graduate student. Must be taken with DIGM 5637 Advanced Interaction Design.

DIGM 5646 Animation Graduate Laboratory (1 credit) — Experiments and practical exercises dealing with techniques in 2D and 3D animation, designed to reinforce and supplement concepts learned in Advanced Animation. This lab is oriented specifically for the graduate student. Must be taken with DIGM 5647 Advanced Animation.

DIGM 5656 Web Design Graduate Laboratory (1 credit) — This course must be taken with DIGM 5657 and will incorporate advanced-level laboratory exercises and explorations in production for the Web.

DIGM 5666 Product Design Graduate Laboratory (1 credit) — This course must be taken with DIGM 5667 and will incorporate advanced-level laboratory exercises and explorations in product visualization.

DIGM 5816 3D Effects Animation Graduate Laboratory (1 credit) — Experiments and practical exercises dealing with 3D special effects for animation, designed to reinforce and supplement concepts learned in 3D Effects Animation. This lab is oriented specifically for the graduate student. Must be taken with DIGM 5817 3D Effects Animation.

DIGM 5820 New Media Communication and Research (3 credits) — This course provides an overview of human communication factors and how they are applied to new media communications, with a particular emphasis on interactive multimedia. Topics for discussion and research will include usability and human-computer interaction (HCI), experience design, immersive environments, and the potential for new media to facilitate human communication. Research procedures will be used to determine the effectiveness of multimedia messages.

DIGM 5821 Digital Media as an Art Form (4 credits) – An investigation into the historic and current applications of digital media as an art form. By studying the works of 20th and 21st century artists noted for their work in various digital and interactive media, and drawing from aesthetic criteria developed in class, students will produce interactive art projects, and participate in in-depth critical analyses of current digital works. Lecture and laboratory.

DIGM 5826 Motion Tools III Graduate Laboratory (1 credit) – This course must be taken with DIGM 5827 and will incorporate advanced-level laboratory exercises and explorations in digital video production.

DIGM 5876 Modeling & Lighting Graduate Laboratory (1 credit) – This course must be taken with DIGM 5877 and will incorporate advanced-level laboratory exercises and explorations in 3D modeling & lighting.

DIGM 5886 Technical Direction Graduate Laboratory (1 credit) – Experiments and practical exercises dealing with technical aspects of character animation, designed to reinforce and supplement concepts learned in Technical Direction for Animation. This lab is oriented specifically for the graduate student. Must be taken with DIGM 5887 Technical Direction for Animation.

DIGM 5900 Independent Study in Digital Media (1-9 credits) – Individual students or groups of students define a problem and work under the direction of a faculty member. The problem must be approved by the departmental graduate committee. Significant investigation and reporting required.

DIGM 5910 Experimental Media I (3 credits) – *Prerequisite: Permission of instructor.* A digital art and experimental media studio and seminar course designed to support innovative research and production at the Graduate level. This course will focus on investigation into new technologies in digital media, with research into current and new technological advances and on the creative application of those technologies. Students must have advanced level technical skills in their area of intended research.

DIGM 5915 Experimental Media II (3 credits) – *Prerequisite: DIGM 5910 and Permission of instructor.* A digital art and experimental media studio and seminar course designed to support continuing innovative research and production and/or new investigations. Students must have advanced level technical skills in their area of intended research.

DIGM 5957 Topics in Digital Media (2-4 credits) – *Prerequisite: Dependent upon subject matter.* Selected topics of current interest in Digital Media. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with instructor recommended before enrollment.

DIGM 5960 Thesis (3 credits)

DIGM 5970 Digital Media Research Project (3 credits) – Independent research and production of an original digital media production which is a synthesis of the knowledge and skills acquired throughout the Digital Media degree curriculum. This production is the culminating experience for the Digital Media graduate student following the non-thesis option. A comprehensive evaluation of the student's performance shall be conducted by a committee of at least three faculty members to determine whether the student has achieved mastery of his or her discipline.

DIGM 5990 Readings & Research (1-3 credits) – Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a thesis or culminating research project, MUST enroll for 3 credits of Readings & Research. Variable credits (1-3) of Readings & Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to receive credit for such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Grading of Reading & Research will be either satisfactory (S) or unsatisfactory (U), and credit will not be applied to meet program requirements.

Courses Co-listed in Undergraduate Catalog

DIGM 5147 Fundamentals of Character Animation (3 credits)
– *Prerequisite: DIGM 2870, DIGM 3010, ARTA 1110, ARTA 1201, ARTA 1204 or*

permission of instructor. This course emphasizes the practical and theoretical principles of character animation. Students will explore how to put personality into characters and develop skills to create characters that act. The exercises will provide a foundation for comprehending the underlying techniques for capturing expression of emotions in animation. (Graduate students taking this course must also take DIGM 5146 Character Animation Graduate Laboratory.)

DIGM 5617 Advanced Raster-Based Imaging (3 credits) – *Prerequisite: DIGM 1650, ARTA 1110, ARTA 1201, ARTA 1204, or permission of instructor.* Study of advanced raster-based digital imaging and processing. Areas of study will include advanced methods for manipulating and compositing 2D images, photo enhancement, and digital illustration. Customization of software tools for special effects, painting and image manipulation will be covered. Image design, concept development and creativity, and critical evaluation will be emphasized. (Graduate students taking this course must also take DIGM 5616 Raster-Based Imaging Graduate Laboratory.)

DIGM 5627 Motion Tools II: Compositing (3 credits) – *Prerequisite: DIGM 1650, DIGM 2900, DIGM 3010, or permission of instructor.* This course covers techniques and theory concerning motion graphics and compositing for video. Instruction is designed to bridge the gaps between 3D production rendering and final output, live action and computer-generated imagery. Work will be project-based and will provide students with short, demo-reel quality work. Though not required, skills in DVD authoring, vector-based imaging, and advanced 3D skills are helpful. (Graduate students taking this course must also take DIGM 5646 Compositing Laboratory.)

DIGM 5637 Advanced Interaction Design (3 credits) – *Prerequisite: DIGM 2900, DIGM 3400 and/or DIGM 4400, or permission of instructor.* Scripting control programs on advanced digital media platforms to create interactive multimedia works comprising images, animation, digital audio and video. Students are expected to have some computer programming experience. (Graduate students taking this course must also take DIGM 5636 Interaction Design Graduate Laboratory.)

DIGM 5647 Advanced Animation (3 credits) – *Prerequisite: DIGM 2870, DIGM 3010, ARTA 1110, ARTA 1201, ARTA 1204 or permission of instructor.* A study in advanced animation techniques. Topics may include, but are not limited to, animation procedures with a focus on motion, timing and storytelling. (Graduate students taking this course must also take DIGM 5646 Animation Graduate Laboratory.)

DIGM 5657 Advanced Web Design (3 credits) – *Prerequisites (Digital Media majors only): DIGM 3000, DIGM 3200, CSCI 1800, or permission of instructor. Prerequisites (other majors): DIGM 1650, DIGM 3200 or CSCI 1710, and CSCI 1800 or CSCI 1250, or permission of instructor.* This course will familiarize the student with techniques used to create fully functional Web applications keeping graphic design and usability in mind. Topics covered include the use of scripting objects, database interaction, session management, and advanced interface design. Emphasis will be placed on incorporating good development practices with front-end design considerations. (Graduate students taking this course must also take DIGM 5656 Web Design Graduate Laboratory.)

DIGM 5667 Advanced Product Design (3 credits) – *Prerequisite: DIGM 3300 or permission of instructor.* An exploration of the problems, principles, and processes involved in the digital modeling, development, and delivery of product design solutions for virtual and physical industries. In this course students will learn advanced modeling, animation, and surface evaluation techniques, and be able to model, move, and modify innovative product designs for engineering and experience outputs. Students will learn to design for the physical world (to model for manufacture and rapid prototyping) as well as for the virtual (to model for marketing and interactive programs). (Graduate students taking this course must also take DIGM 5666 Product Design Graduate Laboratory.)

DIGM 5817 3D Effects Animation (3 credits) – *Prerequisite: DIGM 3130, DIGM 3900 or permission of instructor.* This production course focuses on dynamic animation strategies to visualize physical phenomena. Students will explore rigid and soft bodies, particle animation, and rendering in both theory and practice. Additional topics include techniques involving instancing geometry with particle motion, basic fluid dynamics, cloth simulation, and dynamic constraints. (Graduate students taking this course must also take DIGM 5816 3D Effects Animation Graduate Laboratory.)

DIGM 5827 Motion Tools III: Application (3 credits) – *Prerequisite: DIGM 2900 or permission of instructor.* A study of the computer as a tool for acquiring, editing and compositing a wide range of source media into high resolution video programs. (Graduate students taking this course must also take DIGM 5826 Digital Video Graduate Laboratory.)

DIGM 5877 Advanced Modeling & Lighting (3 credits) – *Prerequisite: DIGM 3110, DIGM 3120 or permission of instructor.* Topics include lighting effects, shadows, optimized rendering, and techniques for specification in all modeling paradigms. (Graduate students taking this course must also take DIGM 5876 Modeling & Lighting Graduate Laboratory.)

DIGM 5887 Technical Direction for Animation (3 credits) – *Prerequisite: DIGM 3130, DIGM 3140 or permission of instructor.* This course will explore advanced digital character animation techniques. Course topics include character setup, inverse kinematics, joints and bones systems, deformers, scripting and set driven key set-up. There will be an emphasis on effective character set-up procedures and scripting workflow. (Graduate students taking this course must also take DIGM 5886 Technical Direction Graduate Laboratory.)

DIGM 5957 Topics in Digital Media (2-6 credits) – Special topics of current interest to groups of students concerning content not presented in regular course offerings. May be repeated for credit if material covered is significantly different or advanced.

Early Childhood Course Listing (ECED) Courses for Graduate Students Only

ECED 5210. Advanced Child Development (3 credits) — The theoretical basis of human behavior will be examined with an emphasis on child development. Content will focus on the cognitive, social/emotional, and physical domains of development. Historical, philosophical, and societal factors that affect the development of children birth- to nine-years of age will be investigated.

ECED 5330. History and Philosophy of Early Childhood Education (3 credits) — The history of early childhood education is examined using a holistic perspective that encompasses a global, contextually based approach. Theoretical and philosophical frameworks are analyzed as a basis for evaluating programs for young children (birth to age nine).

ECED 5331. Infancy (3 credits) — Infant growth and development are explored using a variety of approaches that include and reflect differing theoretical views. Past and current research studies are used to understand factors that impact environments, relationships, and programs for infants. Field experiences are required.

ECED 5332. Designing Early Childhood Environments (3 credits) — Research studies provide the rationale for planning, designing, and creating appropriate environments for young children (birth to age nine). Factors are considered that influence space and materials for infants, toddlers, pre-schoolers, and primary age children. Selected early childhood facilities, classrooms, and playgrounds will be evaluated during the course.

ECED 5333. Learning Processes of Infants and Young Children (3 credits) — Processes of thinking and learning used by infants and young children to understand their world will be examined using a variety of theoretical approaches supported by research studies. A global perspective will be used to contextualize learning that occurs in classrooms for infants, toddlers, preschoolers, and primary age children (birth to age nine).

ECED 5334. Social Development of Young Children (3 credits) — A variety of approaches will be used to understand how children develop socially and emotionally. Special emphasis will be placed on interpersonal relationships that occur within the context of group settings for young children (birth to age nine).

ECED 5335. Assessing and Evaluating Young Children (3 credits) — Major issues in assessing and evaluating young children (birth to age nine) are examined from a theoretical- and research-based perspective. Selection of age appropriate assessment procedures will reflect an understanding of the child within the context of the family and community. Includes instruction and guided practice in the administration of informal and criterion-based tests.

ECED 5336. Advanced Creative Development (3 credits) — Strategies for promoting the emergent creative dispositions of young children (birth to age nine) are explored. Areas of focus include art, music, movement, play, dramatics, and problem solving. The importance of understanding and encouraging the young child's capacity for creative expression is emphasized.

ECED 5344. Family and Community Relationships (3 credits) — Research based models that enhance interpersonal relationships among adults who care for young children and their families and communities will be examined. Specific examples of best practices will include home visitation, conferences, advisory boards, family centers, and parents as teachers.

ECED 5345. Research in Early Childhood Education (3 credits) — Presentation and analysis of important research studies related to the development of young children. Recent research studies will be examined covering a range of current topics and issues. Criteria for evaluating and interpreting current research will be developed. An individual research project will be designed.

ECED 5352. Theories of Play (3 credits) — Play is examined from an interdisciplinary perspective that examines theories of play, creativity, play therapy, and cognition. The role of the adult, peer interaction, and play assessment are included. Applications in the field through assigned projects with young children are required.

ECED 5356. Language and Literacy Development of Young Children (3 credits) — Theories of acquisition, research, and programs of language enrichment relating to years zero-nine will be studied. Study in language delay, enhancement, individualization, and resource management will also be included.

ECED 5520. Programs for Young Children (3 credits) — Programs will be designed to reflect the most current thinking in terms of how young children think and learn. Theoretically based program models will be examined as a basis for structuring daily experiences and activities. Field experiences are required.

ECED 5570. Practicum in Early Childhood Education (3 credits) — A supervised experience in an early childhood program is matched to the needs of the student. Options for the practicum include program director, supervisor, curriculum development, teacher trainer, or other early childhood professional roles. This experience requires 130 hours in an approved PreK-K and/or 1-4 grade sites. This field experience is also designed to meet the requirements for adding an ECE endorsement to an existing teaching license.

ECED 5580. Student Teaching and Seminar in Early Childhood Education (PreK-4) (6 credits) — A supervised student teaching experience in an approved early childhood program is combined with a seminar in ECE for candidates seeking teacher licensure. This course provides opportunities for students to put theory into practice as they develop their own unique professional teaching style. Planning will be based on constructionist theory, current research, and developmentally appropriate guidelines as defined by NAEYC.

Courses Co-listed in Undergraduate Catalog

ECED 5257. Mentoring in Early Childhood Education (3 credits) — This course is designed to facilitate the development of early childhood professionals in effective methods and principles of mentoring adults who have varying levels of training. Emphasis will be on the role of the mentor as a facilitator for adult learning. As leaders, mentors will implement changes that lead to improved quality in programs and classrooms that serve young children, birth through nine.

ECED 5347. Technology and Media in Inclusive Early Childhood Education (3 credits) — This course is designed to provide a comprehensive overview of the use of media and technology in inclusive early childhood classrooms. This course is based on the theories of Piaget, Vygotsky, and Papert, which support experiential, hands-on learning in the context of social interactions. Theories, research studies, and application of new technology and media will be considered. Special emphasis will be placed on the use of assistive technology in inclusive settings with typically and atypically developing children. The appropriateness of technology use, along with application of new technology and media for children ages birth through grade four will be reviewed.

ECED 5357. Management and Administration of Early Childhood Programs (3 credits) — Operational planning and administration for supervisors, administrators, and directors of programs for young children in public and private schools. Emphasis is placed on the director's role in staff recruitment, hiring, development, and evaluation. Leadership and management techniques are also studied and analyzed.

ECED 5517. Family-School-Community Involvement (3 credits) — Theoretical models of home-school relations will be examined as they have evolved through the 20th/21st century. Strategies for initiating and maintaining effective home-school-community collaboration will be identified with special emphasis on benefits to parents, children, community, and school personnel.

Economics Course Listing (ECON) Courses for Graduate Students Only

ECON 5000. Essentials of Economics (3 credits) — An accelerated course dealing with fundamentals of economic theory. Designed for graduate students with limited or no background in economics.

ECON 5010. Essentials of Statistics (3 credits) — *Prerequisites: MATH 1022 and 1032 or equivalents.* This accelerated course is designed for students entering the M.B.A. or M.Acc. program without recent academic credits in statistics. The course covers basic descriptive statistics and provides a comprehensive introduction to inferential statistics, including estimation and hypothesis testing.

ECON 5110. Economics of Business Decisions (3 credits) — *Prerequisite: ECON 5000 or equivalent.* Economic theory and applied to business problems and business behavior facing the management of a firm. Major topics include demand analysis, production cost determination, pricing policies, forecasting, and investment decisions. A mastery of basic quantitative methods and statistical analysis is assumed. Students are advised to complete ECON 5210 before enrolling in ECON 5110.

ECON 5210. Statistical Analysis (3 credits) — *Prerequisite: ECON 5010 or equivalent.* Emphasizes parametric and nonparametric techniques of statistical inference for management decision making. Topics include: analysis of variance and regression analysis; the use of computerized statistical routines; decision theory and Bayesian analysis; parametric and nonparametric tests of hypotheses; selected multivariate techniques; quality control; and time-series analysis.

ECON 5240. Applied Macroeconomic Theory (3 credits) — *Prerequisite: ECON 5000 or equivalent.* Neoclassical and Keynesian explanations of the aggregate level of income, employment, and prices. A critical view of economic policy – fiscal policy and monetary policy, including the new monetarism and income policy – to deal with problems of inflation, recession, and economic growth.

ECON 5250. International Aspects of Business (3 credits) — *Prerequisites: ACCT 5000, FNCE 5000, ECON 5000, and MGMT 5000 or equivalents.* An overview of the accountancy, finance, economic, management, and marketing aspects of international business. Topics include balance of payments, comparative advantage, foreign exchange, international capital budgeting, currency translation, strategic marketing, international channels, international management issues, and multinational corporations.

ECON 5510. Current Social and Economic Issues (3 credits) — *Prerequisites: ECON 5110 and 5240.* A description and analysis of present-day socioeconomic problems, programs, and policies.

ECON 5900. Independent Study in Economics (1-3 credits) — A course designed for graduate students who, under the direction of an economics faculty member, wish to engage in independent research or an intensive study of subjects not covered in other available courses. Prior departmental and college approval is needed.

Courses Co-listed in Undergraduate Catalog

ECON 5317. Health Care Economics (3 credits) — *Prerequisites: ECON 2220 or prior approval needed.* An overview of the economics of the health care industry; topics include the production and pricing of health, the demand and supply of medical care and health insurance, the markets for

physician and hospital services, health manpower, medical education, and the role of government and legislation in health care.

ECON 5327. Labor Economics (3 credits) — *Prerequisites: ECON 2210 and 2220.* Theoretical and real world operations of labor markets. Labor relations systems in the United States, Europe, and Japan including the role of labor unions. Major issues in labor relations such as labor law reform, wage inequality, and employment discrimination.

ECON 5337. Government Finance and Public Choice (3 credits) — *Prerequisites: ECON 2210 and 2220.* The economic functions of government in a market-oriented economy; how governments allocate expenditures according to the preferences of individuals that comprise society; and how governments raise money to finance their expenditures.

ECON 5347. Collective Bargaining (3 credits) — *Prerequisites: ECON 2210 and 2220.* A study of the organization of labor and management for collective bargaining; the subject matter for bargaining and bargaining procedures. A special study will be made of the laws affecting collective bargaining.

ECON 5447. Urban and Regional Economics (3 credits) — *Prerequisites: ECON 2210 and 2220.* An examination of the theories of urban and regional economic growth and development.

ECON 5457. Industrial Organization and Regulation (3 credits) — *Prerequisites: ECON 2210 and 2220.* An overview of the structure and performance of the U.S. economy. Review and evaluation of public policies adopted to improve economic performance, such as antitrust and public utility regulation. Current issues include competitiveness, deregulation, high-technology, and foreign competition.

ECON 5527. International Economics (3 credits) — *Prerequisites: ECON 2210 and 2220.* Economic specialization and international trade and investment. The growth of the global economy and economic integration. The gains and losses to consumers and producers. Government policies to promote and/or restrict international business activities. Role and operation of the international financial system. The rise of multinational companies and global markets.

ECON 5957. Topics in Economics (3 credits)

Education Foundations Course Listings (EDFN) Courses for Graduate Students Only

EDFN 5000. History and Philosophy of Education (3 credits) — Study of the historical and philosophical foundations of education with emphasis on how major theories and historical events have influenced education in public schools of today.

EDFN 5010. Interdisciplinary Seminar (1 credit, may be repeated for a total of 3 credits credit) — This course is required of all M.Ed. candidates in the College of Education. Current topics pertaining to the profession of education will be presented by local, state, regional, and national authorities. Issues that directly impact education such as political, economic, legal, sociological, health, and psychological will be discussed.

EDFN 5050. Social and Political Influences on Schools (3 credits) — Students will analyze the social and political contexts surrounding schools with emphasis on increasing diversity and multiculturalism within schools. The impact of local, regional, national, and global contexts will be studied. Particular emphasis will be given to the philosophical and cultural influences that shape thinking about schooling and how these influences impact on informal and formal leadership roles in the school.

EDFN 5400. Seminar in Issues, Problems, and Innovations in Education (3 credits) — *Corequisite: Enrollment in CUA1 5580.* The course is designed for the master of arts in teaching program taught in conjunction with student teaching. Contemporary issues and problems confronted by public school teachers are analyzed by the students. Current innovations are studied as they develop.

EDFN 5405. The Profession of Teaching (1 credit) — *Prerequisite: Admission to teacher education or permission of the M.A.T. program coordinators. Corequisite: Enrollment in EDFN 5411.* This is the initial course for students entering the M.A.T. program and focuses on teaching as a career, including the roles and responsibilities of a teacher, teacher professionalism and teacher leadership.

EDFN 5410. Foundations of Education (3 credits) — History and philosophy underlying development of the American education system.

EDFN 5411. Exploring Schools (3 credits) — *Prerequisite: Admission to teacher education or permission of the M.A.T. program coordinators. Corequisite: Enrollment in EDFN 5405.* Students in this class will observe, identify, analyze, and reflect on classroom practice in a variety of settings. Field experience in area schools is required.

EDFN 5950. Methods of Research (3 credits) — This course includes the study of research as an approach to problem solving, methods of conducting qualitative and quantitative research, research designs, statistics used in experimental and descriptive research, principles of research interpretation, and the effective communication of research results. The course includes the preparation of a research prospectus or action research plan.

EDFN 6730. Foundations: Historical and Philosophical Foundations of Education (3 credits) — Designed to offer an overview of the historical and philosophical foundations of education and implications for educational practice today.

EDFN 6906. Independent Study in Foundations of Education (3 credits) — This course provides for independent study under the direction of an appropriate faculty member. Significant research required.

Educational Leadership and Policy Analysis Course Listing (ELPA) Courses for Graduate Students Only

ELPA 5100/6100. Interpersonal Relations (6 credits) — A course integrating the various competencies of interpersonal relations into the school leader's repertoire. Student's skills in collecting and managing the flow of information, motivating others, becoming sensitive to human needs and concerns, and communicating effectively in both oral and written modalities will be refined within the context of course activities.

ELPA 5200/6200. Emerging Perspectives Influencing the School (6 credits) — *Prerequisites: ELPA 5100 or 6100.* Course will critically analyze philosophical and cultural issues reflective of the local, regional, national, and global social contexts of which the schools are a part. Students will learn legal and regulatory applications of school leadership. Budget planning, development, and implementation will be examined as a logical outgrowth of environmental context influencing schools.

ELPA 5300/6300. Professional Needs of Individuals and Groups (6 credits) — *Prerequisites: ELPA 5100/5200 or 6100/6200.* Course increases student knowledge of measurement and evaluation of school outcomes; student guidance and development; adult learner development and learning patterns; foundations of the field of continuing professional development.

ELPA 5400/6400. Developing Learners Through Instructional Leadership (6 credits) — *Prerequisites: ELPA 5100, 5200, 5300, or 6100, 6200, 6300.* Course will address skills and competencies necessary for formulating goals with individuals or groups; planning for organizational change; planning and scheduling resource allocation and utilization; planning, developing, and implementing instructional programs, and assessing school curricula within a changing environment.

ELPA 5500/6500. Implementation Strategies: Making It Happen (6 credits) — *Prerequisites: ELPA 5100, 5200, 5300, 5400 or 6100, 6200, 6300, 6400.* Course will approach problem resolution as logical outgrowth of problem analysis, judgment formulation, plan implementation, task delegation, and resource management. Students will learn how to facilitate sound decision-making within the entire school community.

ELPA 5600/6600. Shaping the Quality and Character of the Institution (6 credits) — *Prerequisites: ELPA 5100, 5200, 5300, 5400, 5500 or 6100, 6200, 6300, 6400, 6500.* Course will focus on relationships between public policy and education; recognizing policy issues; and relating policy initiatives to student welfare. Students will develop an understanding of the importance of sound planning in maintaining school, community, and media relations.

ELPA 6010. Leadership for Lifelong Learning (3 credits) — This seminar focuses on current practices in educational leadership as they

relate to the organization and administration of educational programs serving diverse populations. Particular emphasis is placed on the role of the educational leader in promoting the concept of lifelong learning in the organization and the politics of education.

ELPA 6020. Seminar in Educational Supervision (3 credits) — An examination of problems and issues in supervision. Emphasizes evolving concepts of supervision and strategies and practices of promoting instructional change.

ELPA 6030. Instructional Leadership (3 credits) — An examination of major areas of curriculum study. Emphasizes current trends in curriculum development and implementation.

ELPA 6220. Specialist Seminar (1 credit) — *Prerequisites: ELPA 6450, 6954, 6951, 6872, or CUA1 5281, ELPA 6452.* This seminar is one of the required leadership core courses. The course should not be taken before 30 credits of the educational specialist program have been completed. The course must be completed during the period of residency with the approval of the student's advanced graduate advisory committee chair. The seminar provides students with the opportunity to complete and present the results of their culminating project for the Ed.S. degree.

ELPA 6450. Leadership Studies (3 credits) — The purpose of this seminar is to develop a more in-depth understanding of theory and research related to the study of leadership. Although there will be a brief review of traditional theories from traditional approaches (trait, behavioral, etc.) through contemporary approaches (situational, transformational, symbolic, etc.), the focus of this class is on "cutting-edge" ideas. Students are strongly encouraged to explore nontraditional approaches to thinking about how leadership can be conceptualized, explored, and understood, as well as how to relate their ideas to current models. Emphasis will be given to student-initiated exploration of themes which underlie leadership.

ELPA 6451. Strategic Planning and School-Based Decision-Making (3 credits) — An examination of the theory behind strategic planning and school-based management and an examination of the implementation of the concepts in America's schools.

ELPA 6452. Creating Effective Organizational Cultures (3 credits) — *Prerequisites: ELPA 6450 or permission of instructor.* Students will study the elements that contribute to the development of effective organizational cultures. The course will focus on the critical importance of leadership in creating organizational cultures and will stress the importance of developing a shared vision within the organization. Students will learn strategies for developing organizational cultures that promote reflection, action, and the continuous improvement of performance.

ELPA 6453. Ethics for Educational Leaders (3 credits) — The purpose of this seminar is to develop a more in-depth understanding of ethical theories and ideas relevant to the educational leader. The course provides an opportunity for self-examination of personal views, beliefs and values and the impact of those thoughts on personal leadership development. The course provides a historical perspective to the development of ethical thought, the evolution of ethical thinking through the centuries, and consideration of current ethical decision-making and dilemmas for leaders. The course qualifies as a guided elective in Educational Leadership for doctoral students in all concentrations except the administrative endorsement.

ELPA 6555. Reflective Practice I (3 credits) — *Corequisite: CUA1 5215.* This course involves fieldwork under the guidance of a mentor who has achieved certification from the National Board for Professional Teaching Standards. The mentor and student will collaboratively plan and implement a plan of professional development that will lead to the development of the NBPTS portfolio. Much of the collaborative work will occur in the school of the student, although periodic seminars will be held. A secondary focus of the course will be on the mentoring process and the essential elements in an effective mentor/student relationship.

ELPA 6556. Reflective Practice II (3 credits) — *Prerequisites: CUA1 5215 and ELPA 6555; Corequisite: CUA1 5216.* This course is a continuation of ELPA 6555, involves work under the guidance of a mentor who has achieved certification from the National Board for Professional Teaching Standards. The mentor and student will continue to implement a plan of professional development that will lead to the development of the NBPTS portfolio. Much of the collaborative work will occur in the school of the student,

although periodic seminars will be held. Students will present their portfolios to their colleagues and complete practice assessments that parallel the National Board Certification Process. Additional emphasis will be given to the role of mentoring in fostering school-based professional development.

ELPA 6558. Innovative Practices in Classroom Leadership (3 credits) — This seminar is designed to acquaint students with innovative practices related to leadership in schools that promote classroom instruction. Class sessions will include participation of innovative teacher-leaders from different school systems. The topics for this seminar will change from semester to semester but will include topics of current relevance to classroom teachers. (fall)

ELPA 6560. Small Group Leadership (3 credits) — Through activities in this course students will explore their leadership skills specifically related to forming compatible, achieving groups capable of completing tasks to complement the organizational vision. Students will examine the classic and contemporary literature on topics affecting groups such as conflict, collaboration, negotiation, power issues, decision-making, compromise strategies, and team-building.

ELPA 6561. Organization Development (3 credits) — The principal purpose of this seminar is to show the process by which planned change occurs in educational organizations through the application of behavioral science knowledge. The focus of organizational development is on the ability of organization members to diagnose and solve their own problems. Organizational development addresses a broad range of topics, including the effects of change, the methods of organizational change, and the factors influencing organizational development success.

ELPA 6563. The Adult Learner (3 credits) — This course is designed to acquaint students with the development of adult learning and education in this country and the resulting social, political, and economic implications. Students analyze theory, research, and practice as a basis for improving the learning environments of formal and nonformal adult education programs.

ELPA 6581. Internship in Educational Leadership (3 credits) — This course involves fieldwork under the direction of a practicing organizational leader. The supervising faculty member from the department serves as a liaison between the university and professionals at the placement site.

ELPA 6720. Supervisory Techniques (3 credits) — A basic course for special and general supervisors and supervising principals with emphasis on a multidimensional approach to supervision. Related application of theory to practice.

ELPA 6810. Theories of Administration (3 credits) — Includes the history and development of major administrative theories. Emphasizes the use of these theories in administering an organization.

ELPA 6820. Law for Organizational Leaders (3 credits) — Includes history of legal provisions for public education in the United States and school legislation in Tennessee. In a seminar setting, the class identifies and analyzes trends in legislation, case law, precedent, and interpretation as these factors influence and are influenced by the changing role of education in modern life. Emphasizes, but is not limited to, the school law of Tennessee and neighboring states.

ELPA 6830. School Housing and Transportation (3 credits) — Emphasis on planning, financing, and utilizing the school plant. Consideration is given to forms and surfaces, flexibility, machines and furniture, and equipment. Operation and administration of transportation are included.

ELPA 6841. School Finance and Business Methods (3 credits) — Federal, state, and local financing of schools; equalization of education opportunity; sources of school revenue; school budgets; and business methods of accounting are included.

ELPA 6861. Human Resource Function (3 credits) — Course deals with human resource problems of staff and students from the administrator's point of view: records, test score use, assignment, recruitment, professional negotiations, insurance, fringe benefits, guidance programs, etc.

ELPA 6870. Field Research in Educational Leadership (1-3 credits) — *Prerequisite: EDFN 5950 or equivalent.* Students will take an active part in the collection and analysis of research data of importance to educational leaders. Students will also take an active part in the writing of research reports and dissemination of findings. Students should check with the instructor prior to enrolling in this course.

ELPA 6872. Technology Applications for Educational Leaders (3 credits) — The course is designed to provide the student with state-of-the-art knowledge of computer technology related to administration, research, statistics, peripheral interfaces, personal productivity, and basic programming in administration and management.

ELPA 6874. Current Issues in Distance Education (3 credits) — This Internet-based seminar will emphasize a variety of current issues in distance education, including: teaching and learning theory; faculty concerns; curriculum; technical delivery systems; organization and administration; copyright regulations; student profiles and reactions; and consortia efforts to deliver distance education programs.

ELPA 6901. Independent Study in Educational Administration (3 credits) — This course provides for independent study under the direction of an appropriate faculty member. Significant research required.

ELPA 6902. Independent Study in Educational Supervision (3 credits) — This course provides for independent study under the direction of an appropriate faculty member. Significant research required.

ELPA 6903. Independent Study in Curriculum Development (3 credits) — This course provides for independent study under the direction of an appropriate faculty member. Significant research required.

ELPA 6904. Independent Study in Personnel and Guidance (3 credits) — This course provides for independent study under the direction of an appropriate faculty member. Significant research required.

ELPA 6908. Independent Study in the Administration of Higher Education (3 credits) — This course provides for independent study under the direction of an appropriate faculty member. Significant research required.

ELPA 6951. Seminar in Research Analysis and Interpretation (3 credits) — *Prerequisite: EDFN 6950 or equivalent.* This seminar provides a forum for discussion of current research relevant to educational leaders. Students will learn the principles of research interpretation through an examination of the current literature and will concurrently learn to conduct appropriate analyses of research data using computer technology.

ELPA 6952. Action Research (3 credits) — *Prerequisite: EDFN 6950 or equivalent.* This course introduces the methods and concepts of action research. Action research is presented as a reflective process used by practicing classroom teachers to identify and solve problems of importance in the classroom. Action research is approached as a professional development activity that allows teachers to discover the complexities in teaching and offers suggestions for improving learning.

ELPA 6953. Policy Analysis (3 credits) — The purpose of this course is to develop an understanding of the process by which policy is formulated, analyzed, implemented, and evaluated. The focus will be on such actions as undertaken by policy analysts in and out of government. The methodological issues and techniques used to accommodate the major social, economic political, and behavioral aspects of policy analysis in an organizational context will be discussed.

ELPA 6954. Educational Program Evaluation (3 credits) — *Prerequisite: EDFN 5950 or equivalent.* This course prepares students as critical, reflective evaluators of educational programs. Students are provided an introduction to the many activities associated with development, implementation, and assessment of educational program evaluation. They subsequently demonstrate their knowledge of evaluation methodology and design by formulating and implementing an evaluation plan for an existing educational program. Students present their evaluation plans and outcomes during class for critical analysis and assessment.

ELPA 6955. Grant and Proposal Development (3 credits) — This course examines the possibilities for additional funding through grant development. Students use newsletters, foundation and government publications, as well as the Internet, to locate sources of funding. Interviews are conducted with persons who have had previous success in receiving grant funding. The course also emphasizes refinement of writing skills, development of an organizational vision, goal-setting, political realities, and public relations techniques. Budget development with software options as well as audit protocol will also be explored. Presentation and team-building skills are another critical dimension to successful grant funding and implementation.

ELPA 7110. Community Colleges in the United States (3 credits) — This course emphasizes the history, philosophy, and contemporary nature of community colleges in terms of organization and administration, students, faculty, curriculum and instruction, finance, and issues and trends.

ELPA 7220. Supervising Community College Curriculum Planning (3 credits) — A study of program planning at the community college level; includes a study of the relationship between secondary curriculum and community college curriculum; considers trends in curriculum development of reform, materials of instruction, and supervision at the community college level.

ELPA 7810. Educational Statistics (3 credits) — This course emphasizes statistics for use in educational research: measures of central tendency, variation, rank, and correlation; the normal curve and probability; testing differences between means; analysis of variance; and nonparametric procedures.

ELPA 7811. Quantitative Research (3 credits) — *Prerequisites: ELPA 7810 and EDFN 5950 (or equivalents).* This course builds on the foundations of research and statistics and introduces multivariate statistical techniques commonly used in educational research. It develops skills in parametric and nonparametric analysis, survey design and scale construction, database development and management, and the use of statistical analysis packages.

ELPA 7812. Qualitative Research (3 credits) — *Prerequisites: EDFN 5950 (or equivalents).* This course provides an introduction to the qualitative research process. Qualitative research is examined in this course through 1) reading 2) personal reflection, and 3) inquiry activities. The basic concepts and methods of qualitative research are studied through collaborative, constructivist activities. The qualitative research process is presented as a series of ongoing and overlapping activities. Topics include the identification of the assumptions that support the qualitative research, the identification of research questions, the use of theory in the research process, participant selection, methods of data collection, data analysis strategies and tools (including the use of microcomputers), and the reporting of results.

ELPA 7813. Research in Educational Leadership (3 credits) — *Prerequisites: ELPA 7810 and EDFN 5950, and ELPA 7811 or 7812 (or equivalents).* This course is designed to strengthen knowledge and skills necessary to conduct, understand, evaluate, and utilize advanced research in the field of educational leadership. It provides a forum for students to engage in critical thinking and reflection as they begin working on their dissertation prospectus.

ELPA 7820. Administration of Higher Education (3 credits) — This course emphasizes the administration, financial support, staffing, community relations, and program development in higher education; includes objectives and trends in American higher education, organizational patterns, and community colleges.

ELPA 7821. Higher Education Law and Finance (3 credits) — This course provides an examination of legal and financial issues that impact American higher education. It is designed as an overview for future faculty, staff, and administrators in colleges and/or universities.

ELPA 7960. Doctoral Dissertation (3-6 credits) — By arrangement with student's graduate committee.

ELPA 7990. Readings and Research (1-3 credits) — This is a course that is required of all students who have completed the number of credits of Dissertation (7960) specified in their program of study but have not completed the dissertation and MUST be taken each semester (three credits) until the thesis is approved. Additionally, students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus, thesis, or dissertation MUST enroll for three credits of Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by the student's advisory committee in conjunction with other coursework, to receive credit for such activities as preparation of designated papers or development of research and scholarly skills that would not be appropriately covered by other types of independent study. Grading of Readings and Research will be either satisfactory (S) or unsatisfactory (U).

English Course Listings (ENGL) Courses for Graduate Students Only

ENGL 5019. Supervised Experience in Teaching (3 credits) — Practicum for Teaching Assistants.

ENGL 5020. Medieval Literature (3 credits) — Study of significant works from British medieval literature, often including works by the Gawain Poet and Chaucer.

ENGL 5029. Supervised Experience in Research (1 credit) — For Graduate Assistants with research assignments.

ENGL 5039. Supervised Experience in Administration (1 credit) — For Graduate Assistants with administrative assignments.

ENGL 5060. Literature of Southern Appalachia (3 credits) — Selected writings of outstanding regional authors.

ENGL 5160. Renaissance Literature (3 credits) — Study of major writers—poets, dramatists, essayists—of the British Renaissance.

ENGL 5170. Teaching English as a Second Language (3 credits) — Teaching ESL is designed to introduce graduate students to the theory and practice of teaching English to speakers of other languages.

ENGL 5180. Internship in Teaching English as a Second Language (3 credits) — This course gives students the opportunity to apply principles and techniques of teaching English as a second language from previous coursework to actual ESL classroom settings. This satisfies a portion of the requirement for an "add-on" endorsement in ESL.

ENGL 5200. Restoration and 18th Century (3 credits) — Study of Restoration and 18th century British literature, with attention to development of drama, poetry, and prose in historical context.

ENGL 5250. 18th Century British Novel (3 credits) — Study of major 18th century British novelists, usually including Behn, Defoe, Fielding, among others.

ENGL 5300. Romantic Literature (3 credits) — Study of major writers of British Romanticism, usually including Wordsworth, Scott, and de Quincey among other poets, novelists, and essayists.

ENGL 5350. Victorian Literature (3 credits) — Study of major writers during the Victorian period.

ENGL 5400. Nineteenth Century British Novel (3 credits) — Study of major 19th century British novelists, usually including Austen, Dickens, Eliot, among others.

ENGL 5420. 20th Century British Literature (3 credits) — Study of range of British literature during the 20th century, including works from significant poets, novelists, and dramatists.

ENGL 5440. 20th Century British Novel (3 credits) — Study of representative British novelists of the 20th century, usually including Lawrence, Joyce and Woolf.

ENGL 5450. Colonial and Federal American Literature (3 credits) — Readings in important colonial and federal texts, including diaries, sermons, political tracts, and fine literature by poets such as Bradford and Taylor.

ENGL 5500. 19th Century American Poetry (3 credits) — Study of major 19th century American poets.

ENGL 5550. 19th Century American Fiction (3 credits) — Study of major novelists and short story writers during this period.

ENGL 5600. 20th Century American Poetry (3 credits) — In-depth study of major 20th century American poets.

ENGL 5650. 20th Century American Fiction (3 credits) — Representative American novels and short fiction since 1900.

ENGL 5670. Seminar in Folklore (3 credits) — In-depth study of folklore theory, methodology, and a selected genre or topic, such as oral narrative, material culture, occupational lore, etc. Includes fieldwork. May be repeated when topic changes.

ENGL 5680. Seminar in Linguistics (3 credits) — Selected areas of linguistics. May be repeated when topic changes.

ENGL 5730. Seminar in British Literature (3 credits) — Seminars in selected British authors, both major and minor, and in related subject matter. May be repeated when topic changes.

ENGL 5750. Seminar in American Literature (3 credits) — Seminars in selected American authors, both major and minor, and in related subject matter. May be repeated when topic changes.

ENGL 5800. Seminar in Continental Literature (3 credits) — Seminars in European authors other than British, and in related subject matter. May be repeated when topic changes.

ENGL 5910. Independent Studies (1-3 credits) — Directed study in an area, not provided for in course offerings, for which the student has special interest and adequate preparation. By permission of the Graduate Director. Open only to majors and minors.

ENGL 5920. Studies in English Education (3 credits) — Topics related to the teaching of English.

ENGL 5935. Seminar in Professional Writing (3 credits) — An advanced course on expository writing with emphasis on professional applications, heuristics, and methods of research and communication using electronic technology.

ENGL 5940. Seminar in Creative Writing (3 credits) — Specialized instruction individually adapted to the student's creative strengths and interest. By permission of the instructor.

ENGL 5950. Methods of Research (Required) (3 credits) — Required for graduate majors and minors in English. Special emphasis in research methods in literature, language, and English education.

ENGL 5960. Thesis in English (Required) (3 credits) — The student must have made application for candidacy and have completed appointment of an advisory committee. By permission of the Graduate Director.

ENGL 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

ENGL 5989. Cooperative Education (variable) — Students must clear arrangement for this course through the Cooperative Education Office prior to registration. Businesses, industries and government agencies provide opportunities for planned and supervised work assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees.

Courses Co-Listed in Undergraduate Catalog

ENGL 5017. Children's Literature (3 credits) — History, genres, methods of presentation: emphasis on sources of criticism and bibliography

ENGL 5047. African-American Literature II (3 credits) — Focus on central issues addressed by African-American Literature, with emphasis on such topics as "The Harlem Renaissance," African-American Autobiography and Bildungsroman.

ENGL 5057. Writing: Theory and Teaching (3 credits) — An examination of current theory and research in composition and pedagogical techniques.

ENGL 5077. Literature for Adolescents (3 credits) — Wide reading, evaluation and selection of literature appropriate for persons from age 12 to 18.

ENGL 5087. Themes in Women's Literature (3 credits) — Studies of themes and issues affecting women as portrayed in selected fiction, poetry and drama.

ENGL 5117. Grammar and Usage (3 credits) — Study of practical aspects of English syntax, semantics, and usage. Emphasis on the teaching of grammar and usage for those seeking teacher certification.

ENGL 5137. Dialectology (3 credits) — *Prerequisite: Either ENGL 3100 or 4120.* Study of regional and social language variation, including dialect geography and sociolinguistics. Emphasis on linguistic features of Appalachian dialects.

ENGL 5207. Literature of the South (3 credits) — Significant works of writers of the American South.

ENGL 5217. Irish/Scottish Literature (3 credits) — Study of major writers in Irish and Scottish literature with attention to folklore and culture.

ENGL 5417. Teaching English in Secondary School (3 credits) — Instruction in the methods and materials to be used by English teachers in middle and high school. Offered during fall. Counts as professional education credit.

ENGL 5507. Literature in Film (3 credits) — Film adaptations of significant literary works.

ENGL 5857. Technical Writing (3 credits) — Course emphasizes organization and presentation of technical material through effective applied writing, such as use of graphics, indexing, storyboarding, etc.

ENGL 5907. Creative Writing II: Fiction (3 credits) — *Prerequisite: ENGL 3141 or permission of the instructor.* Advanced course in writing of fiction. Considerable attention to craft and form of stories written by acknowledged masters of the genre.

ENGL 5917. Creative Writing II: Poetry (3 credits) — *Prerequisite: ENGL 3141 or permission of the instructor.* Advanced course in writing of poetry. Particular attention to craft and form of poems written by acknowledged masters of the genre.

ENGL 5957. Topics in English (2-6 credits) — Selected topics in the discipline. Can be repeated for credit when content changes.

Technology Course Listing (ENTC) Courses for Graduate Students Only

ENTC 5010. Modern Industry (3 credits) — The development and significance of current scientific technology. Types of industries, trends, and systems of organization. A study of specific examples. The science of appropriate action applied to production.

ENTC 5020. Industrial Management (3 credits) — An examination of current management practices as applied in manufacturing industries. Particular attention will be directed toward the study of the manager's role as it affects quality.

ENTC 5030. Investigation in Technology (3 credits) — Elements and critical abilities involved in production problem-solving. Investigation of the literature with special reference to research studies pertaining to job problems experienced by participants. Each student will select a problem for study and present the findings to the group.

ENTC/MGMT 5050. Leading Continuous Improvement (3 credits) — *Prerequisites: ENTC 5950 and graduate standing* A study of the skills and knowledge necessary for business and industry to enhance competitiveness in the global arena. Focus on customer driven quality and strategic implementation. Lecture with emphasis on teamwork, team exercises, and presentation.

ENTC/MGMT 5060. Scheduling for Project and Quality Management (3 credits) — *Prerequisite: Instructor Approval.* A detailed study in planning, organizing, and controlling projects. Computer software is used to schedule projects. Emphasis is placed on time, resources, and capital considerations for the project. Lecture, team exercises, extensive laboratory, and presentations.

ENTC/MGMT 5070. Leading Empowered Problem Solving Teams (3 credits) — *Prerequisite: Graduate standing* A course designed to provide graduate students with practical, hands-on experience enhancing their ability to work together solving complex business and technical problems as a cohesive team. Lecture, discussion, teamwork, and presentation.

ENTC/MGMT 5630. Project Management (3 credits) — *Prerequisite: Graduate Standing* A study of contemporary project management. The course focuses on the development and/or enhancement of the ability to successfully plan, schedule, budget, monitor, and control the execution of projects. Lecture with emphasis on teamwork, team exercises, and presentation.

ENTC/MGMT 5640. Innovative Entrepreneurship (3 credits) — *Prerequisite: Graduate Standing* Focus on new business creation based on technology innovation. Provides the innovative prudent risk taker with a practical approach for converting brilliant ideas into wealth. Fundamental methodology is applicable to all who have the desire and drive to start their

own business. Lecture with emphasis on teamwork, team exercises, and presentation. This course is helpful to those having new business and/or product innovation responsibility within existing industry.

ENTC 5800. Strategic Experience (3 credits) — *Prerequisite: All graduate coursework in Technology concentration completed.* Course is designed to be taken last semester of program. Requires graduate committee chair approval. This course is designed to provide the Technology student with an opportunity to apply the skills, knowledge, and experience gained in the program in a realistic problem solving environment. It concludes with the concentration written and oral final examination.

ENTC 5900. Independent Study in Technology (1-9 credits) — Individual students or groups of students define a problem and work under direction of a faculty member. The problem must be approved by the departmental graduate committee. Significant investigation and reporting required.

ENTC 5950. Methods of Research (3 credits) — Analysis of the materials and methods of research appropriate to technology. Orientation to graduate work; should be taken during first term of graduate program.

ENTC 5960. Thesis (3 credits)

ENTC 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

ENTC 5989-99. Cooperative Education (variable) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Businesses, industries, and government agencies provide opportunities for planned and supervised work assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees.

Courses Co-listed in Undergraduate Catalog

ENTC 5017. Industrial Supervision (3 credits) — Behavioral studies related to supervision. Supervisory functions, motivation, interviewing, and personal advancement. Lecture, case studies, discussions, and reports.

ENTC 5037. Quality Assurance I (3 credits) — *Prerequisite: MATH 1530.* Objectives of quality control in manufacturing. Control charts for variables, control charts for attributes, and lot by lot acceptance sampling for attributes. (ANSI/ASQC Z1.4). The statistical approach to methods and procedures associated with quality assurance in manufacturing processes. Lecture.

ENTC 5047. Quality Assurance II (3 credits) — *Prerequisite: TECH 4037.* Process control charting including control charts for attributes, sequential sampling, and lot acceptance sampling for variables. MIL STD 414. Reliability testing, failure rate of a population, bathtub curve, and series/parallel math modeling for reliability. Lecture.

ENTC 5217. Tool Design (4 credits) — *Prerequisites: ENTC 2200 and 2170.* A study of the design concepts for industrial tooling including stamping dies and molds. Materials selection, heat treatment specifications, off-the-shelf tooling components, and make/buy decisions. Utilization of CADD facilities to execute designs. Lecture and laboratory.

ENTC 5227. Engineering Economy (3 credits) — *Prerequisite: MATH 1720 sequence or permission of the instructor.* An economic study of manufacturing; amortization, cash flow, rates of return, depreciation, and present worth analysis. Lecture.

ENTC 5237. Ergonomics and Process Optimization (4 credits) — A study of methods used to improve production, set time standards, and analyze productivity. Lecture and laboratory.

ENTC 5247. Industrial Operations Analysis (3 credits) — Deterministic models including linear programming, quality, transportation, network analysis, game theory, and inventory theory. Lecture.

ENTC 5257. Plant Layout & Materials Handling (3 credits) — Principles of plant layout, process and flow charts, machine location, auxiliary services, safety, and personnel organization. Materials handling methods and case studies emphasized. Lecture.

ENTC 5277. Process Control and Instrumentation (4 credits) — Principles of measurement and control used in the manufacturing process industries. Theory and laboratory experience pertaining to modern instrumentation; pressure, temperature, liquid level, flow, and automatic controls. Lecture and laboratory.

ENTC 5287. Introduction to Robotics (3 credits) — *Prerequisite: One computer science course.* Theory, fundamental concepts, and applications of robotics and computer-aided manufacturing. Includes history, robot elements and types, actuators and manipulators, programmable systems, vision systems, safety, robotic work cells, applications, and economic analysis. Lecture and laboratory.

ENTC 5307. Telecommunications (4 credits) — *Prerequisite: ENTC 4310.* Analysis, theory, and applications of digital communication systems, emphasizing digital modulation and demodulation schemes and performance analysis techniques in the presence of noise.

ENTC 5337. Microprocessors (4 credits) — *Prerequisite: ENTC 3370.* Introduction to microprocessors. Instruction is developed around a trainer using an 8085 microprocessor. Topics include microcomputer programming, the 8085 instruction set, breadboarding circuits, device selection, and introduction to interfacing. Lecture and laboratory.

ENTC 5347. Digital Signal Processors (4 credits) — *Prerequisite: ENTC 5337.* A continuation of ENTC 5337. Instruction is developed around an INTEL SDK-85 single board computer. Topics include review of SDK-85 hardware and instruction set, arithmetic operations, serial data communications, interfacing analog devices, using interval timers, speech synthesis, and an introduction to troubleshooting. Lecture and laboratory.

ENTC 5417. Construction Financing & Administration (3 credits) — *Prerequisites: ENTC 2410, 2430, CSCI 1000.* A detailed study of the methods of financing construction projects as well as the construction company. Included are a discussion of interest rates, bonds, insurance, amortization, and depreciation. Lecture.

ENTC 5717. Computer Assisted Numerical Control Programming (3 credits) — *Prerequisite: ENTC 3710.* A study of computerized methods for generating numerical control (N/C) programs utilizing (1) tool path definition software applicable to CAD drawing databases and (2) N/C programming languages including APT and COMPACT II. Source program structure including initialization, geometry definition, and cutter path definition statements. Links and post processors. Syntax conventions. Writing, running, and debugging source programs to generate list/cutter location files and tape files. Lecture and laboratory.

ENTC 5777. Safety Management (3 credits) — A study of the causes of accidents, methods of preventing accidents, personal protection, OSHA and industry, and general shop safety.

ENTC 5957. Topic in... (2 to 6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in technology. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Technology Education Course Listing (ENTC) Courses for Graduate Students Only

ENTC 5600. History and Philosophy of Vocational Education (3 credits) — The nature and philosophy of vocational-technical education. A study of the development of industrial education and its relationship to the development of technical education. The purposes of vocational education in regard to the total school program.

ENTC 5610. Content and Method in Industrial Education (3 credits) — Basic assumptions for content and methods in industrial education. Development and organization of content and methods indicated by research in the field. Creation and utilization of teaching materials and devices appropriate to industrial education.

ENTC 5620. Administration & Supervision in Industrial Education (3 credits) — The organization and operation of industrial

education programs. Evaluation of objectives, programs, instruction, facilities. School and community relationships, budgets, and inventories. Problems of the supervisor. Differentiation of industrial arts/technology education from trade and industrial education, apprenticeship, and technical education programs.

Courses Co-listed in Undergraduate Catalog

ENTC 5617. Vocational Guidance (3 credits) — Including an orientation to the value and use of vocational guidance for vocational education. The roles of people as well as the tools for guidance will be studied along with determining ways and means of providing current career information to students. Meeting the needs of the handicapped and disadvantaged in vocational classes will be explored.

ENTC 5637. Evaluation in Industrial Education (3 credits) — Fundamental concepts and terminology of the testing movement. Classification, characteristics, and use of tests in industrial education. Construction of informal tests. Use of standardized tests. Interpretation and use of test results. Utilization of advisory committees in evaluation of industrial education courses and programs.

ENTC 5647. Job Analysis and Curriculum Organization (3 credits) — An introduction to the systematic and orderly processes of identifying and organizing instructional materials for occupational training and curriculum development. Experience in writing job descriptions, preparing and performing analyses, and sequencing selected course content.

ENTC 5747. Instructional Management in Industrial Education (3 credits) — The processes involved in developing a physical learning environment for teaching laboratory courses. Utilizing the teacher and the advisory committee in layout of facilities that reflect efficiency of use, safe working conditions, and industrial orientation. The same criteria will be applied in identifying co-op training stations in the community.

ENTC 5767. Coordinating of Student Clubs and Leadership (3 credits) — Coordination of formal student groups, such as VICA and TSA. A study of the management, operation, and planning of these organizations. Leadership activities and exercises.

ENTC 5787. Methods of Teaching Vocational/Technology Education (3 credits) — *Prerequisites: Upper-division standing or permission of instructor; and admission to Teacher Education; for students seeking teaching certification in the applied sciences and technology.* Introduction to basic instructional processes appropriate for vocational/technology education. Criteria for selecting instructional method. Emphasis on establishing measurable goals and objectives as well as individualized instruction. Types and utilization of instructional technology materials.

Environmental Health Course Listing (ENVH) Courses for Graduate Students Only

ENVH 5100. Environmental Health Practice I (3 credits) — The effects of environment and occupations on health are discussed. Consideration is given to such factors as solid waste, water, wastewater, insects, rodents, and noise. The historical background of human ecology, communicable disease control, and special programs and problems in public health are discussed. Not required for students with a B.S.E.H. or equivalent. (Annual)

ENVH 5200. Environmental Chemistry (4 credits) — *Prerequisite: ENVH 4397 or permission of the instructor.* A course covering the advanced instrumentation used in environmental chemistry. Includes principles of quality assurance and quality control. (Offered spring)

ENVH 5250. Environmental Microbiology (4 credits) — *Prerequisite: ENVH 5387 or permission of the instructor.* A study of those aspects of biology, microbiology, biochemistry, and physiology of concern to students interested in environmental health. Includes principles of toxicology and ecological management methods used in hazardous waste contamination remediation. (Offered fall)

ENVH 5500. Air Pollution Principles (3 credits) — A course designed to introduce the student to the broad field of air pollution. Lecture topics include sources, emissions, atmospheric dispersion, effect on humans, materials, and control equipment. (Alternate years)

ENVH 5600. Water Pollution Principles (3 credits) — A course covering the sources, causes, and effects of water pollution in light of water standards; reviews methods of control of the physical, chemical, and biological factors. (Alternate years)

ENVH 5610. Water Pollution Control (3 credits) — This course provides information concerning sources of water pollution and emphasizes biological and physical-chemical wastewater treatment systems. (Alternate years)

ENVH 5640. Environmental Risk Assessment (4 credits) — A survey course designed to introduce the student to the emerging science of environmental risk assessment. The course is designed to apply characteristics of hazardous materials, chemistry, and biology to the assessment of risk associated with exposure to hazardous material. (Alternate years)

ENVH 5700. Industrial Hygiene and Safety (3 credits) — A course on the problems of occupational disease hazards and preventive measures of their control. It includes occupational exposure to dusts, gases, vapors, fumes, biological factors, and other problems related to industrial health and safety. Field trips are taken to typical industries. (Alternate years)

ENVH 5760. Industrial Ventilation (3 credits) — *Prerequisite: ENVH 5700 or permission of the instructor.* The course looks at basic design and application of industrial ventilation systems including hood, duct, fan, cleaner and stack components. Course content centers around the use of various monitoring instruments required to perform ventilation surveys, calculation of work design problems, and troubleshooting ventilation systems. (spring)

ENVH 5780. Characteristics of Hazardous Material (3 credits) — This course provides detailed descriptions of what constitutes hazardous materials. Categories of hazardous materials are described based on chemical characteristics, effects, and regulatory requirements. The course also summarizes methods of analysis. (Alternate years)

ENVH 5840. Solid Waste Management (3 credits) — This course is designed to investigate the problems and solutions to the storage, collection, and disposal of solid waste. The content of the course centers around the solid waste planning and management aspects of designing, organizing, and operation of refuse collection, recycling, and disposal systems. (Alternate years)

ENVH 5841. Hazardous Waste Management (3 credits) — The course emphasizes a management approach for hazardous waste with particular regard to regulation under the Resource Conservation and Recovery Act. The problem of hazardous waste is defined, and other topics covered include generation, storage, transport, management of spills, disposal, and more. (Alternate years)

ENVH 5860. Environmental Health Administration (3 credits) — Administration of environmental health programs and organization. Includes organization structure, forces of management, administrative controls, personnel and financial management, and legal aspects. Lectures, seminars, discussions, and group exercises. (Alternate years)

ENVH 5870. Public Health Law (3 credits) — An introduction to public health law including a study of the legal powers available for implementing programs, methods for their most effective use, and of the recognition and management of legal problems; and an analysis of the legal relationship of public health personnel to the government, the staff, and the public. (Annual)

ENVH 5871. Hazardous Material, Laws, & Regulations (3 credits) — This course provides an introduction to the process of development and application of federal environmental regulations, with a detailed review of the laws and associated regulations, which govern the control of hazardous materials. (Alternate years)

ENVH 5890. Environmental Planning (3 credits) — This course emphasizes the planning process as it relates to the health and welfare of the community; i.e., defining the problem, determining the objectives, applying methods to solve the problems, evaluating the methods, and implementing the complete program plan. (Alternate years)

ENVH 5900. Independent Study (1-3 credits each) — Independent or cooperative investigation of specific problems in environmental health. (Annual)

ENVH 5910. Seminar (1 credit) — A study of the principles, materials, and methods of research employed in environmental health. (Offered fall)

ENVH 5960. Research and Thesis (1-4 credits) — (Offered each term)

ENVH 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

ENVH 5989-99. Cooperative Education (variable) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Businesses, industries, and governments agencies provide opportunities for planned and supervised work assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students may receive compensation as full-time employees. (Offered each term)

Courses Co-Listed in Undergraduate Catalog

ENVH 5207. Principles of Radiological Health (3 credits) — This course is concerned with the basic principles and procedures pertaining to the safe control of all common sources of ionizing radiation. The causes, effects, and control of radiation are included. (Offered fall)

ENVH 5347. Ergonomics (3 credits) — This course will deal with the study of human factors engineering concerning persons, their work, and the work environment. Includes a discussion of the ergonomics approach to the environment, including sensory factors, motor control, work place design, heat stress, noise, vibrations, illumination, the measurement of work, anthropometric data, and related topics. (Alternate years)

ENVH 5357. Toxicology (3 credits) — *Prerequisite: CHEM 2010/2011 and HSCI 3020 or permission of instructor.* A study of the essentials of toxicity determination and measurements, plus a study of biologic factors important in understanding toxicity. A review of toxic substances in air, water, foods, and the workplace, with a consideration of exposure limits, their rationale, and evaluation methods. (Offered fall)

ENVH 5387. Biological Analysis in Env. Health (4 credits) — *Prerequisites: A course in general microbiology and permission of the instructor.* The principles of microbiology with emphasis on growth requirements and the effects of chemical and physical agents as used for control. Instrumentation used in qualitative and quantitative analysis of the biological environment. (Offered fall)

ENVH 5397. Environmental Analysis (4 credits) — *Prerequisites: Chem 1110/1120 and permission of the instructor.* Provides education in physical and chemical analysis of water, wastewater, food, air, toxic materials, and principles of applied toxicology. Experience in the use of chemical instruments, as well as field methods, will be obtained. Three hours lecture and three hours laboratory. (Offered spring)

ENVH 5607. Food Sanitation Principles (3 credits) — A study of food composition, engineering principles, processing and preservation methods, foodborne diseases and food regulatory programs. (Offered fall)

ENVH 5727. Hazardous Waste Operatons and Emergency Response (3 credits) — The objectives of the course include giving the student basic concepts and techniques for appropriate behavior before, during, and after a hazardous materials incident. The course meets requirements to obtain 40-hour HAZWOPER certification. Three lecture hours per week.

Family and Consumer Sciences Course Listing (FACS) Courses for Graduate Students Only

FACS 5410. Seminar in Nutrition (1 credit) — A study of contemporary research and theory through the utilization of student seminar presentations, and review of current scientific and professional journals in nutrition, medicine, and management. New trends and developments will be discussed and analyzed in-depth. (every semester) (may be repeated)

FACS 5420. Maternal-Child Nutrition (3 credits) — *Prerequisite: Admission into program or consent of instructor.* In-depth instruction in all phases of nutritional care of pregnant, lactating or post-partum women, infants, children, and adolescents. Includes principles of nutritional requirements and application of research findings with special emphasis on those in complex situations and/or at high nutritional risk; classroom discussion of current research and cases. (summer)

FACS 5421-5422-5423. Lifespan Nutrition Practicum I, II, III (2 credits each) — *Prerequisites: Admission into program or consent of instructor and completion of FACS-5420 and 5410.* Clinical experience in all phases of nutritional care of pregnancy, lactation, infants, children, and adolescents. Will also include practicum experiences in community and elderly nutrition programs. A minimum of 24 hours/week of experience in area health care facilities is required. (fall)

FACS 5430. Complex Adult Nutritional Care (3 credits) — *Prerequisites: Admission into program or consent of instructor.* In-depth instruction in all phases of adult nutritional pathology, evaluation, diagnosis, and therapy. Classroom discussion of current research and cases. (fall)

FACS 5431-5432-5433. Medical Nutrition Therapy Practicum I, II, III (2 credits each) — *Prerequisites: Admission into program or consent of instructor and completion of 5430.* Clinical experience in all phases of adult nutritional assessment, intervention, and therapy. A minimum of 24 hours/week of interaction with hospitalized patients and individual members of the multidisciplinary health care team. (spring)

FACS 5450. Advanced Nutrition Therapy (3 credits) — *Prerequisite: Completion of two-thirds of curriculum or consent of instructor.* An in-depth study of etiology and pathophysiology of unusual or complex disorders and the nutritional treatment of disease. (spring)

FACS 5451-5452-5453. Nutrition and Food Systems Management Practicum I, II, III (2 credits each) — *Prerequisites: Admission into the program or consent of instructor and completion of 5410 Seminar in Nutrition-Management.* Practical experience in management of food systems and nutrition services in acute-care hospitals, long-term care facilities, and home-bound and congregate feeding programs in the community. A minimum of 24 hours/week will be spent in nutrition and management functions. (fall, spring)

FACS 5460 Capstone Research Project (3 credits) — *Prerequisites: Successful completion of 15 hours of program and nutrition core requirement.* This research course is designed for students in Clinical Nutrition to fulfill the required culminating written and oral experience if pursuing the non-thesis option. The purpose of the course is to provide graduate students the opportunity to conduct a research project, write a research paper and make an oral presentation of the project. (every semester)

FACS 5960. Thesis (3-6 credits) — (every semester)

FACS 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-Listed in Undergraduate Catalog

FACS 5127. Divorce: Causes and Consequences (3 credits) — Explores the social psychological impact of divorce on families. The economics, legal, social, emotional, co-parental, and former spouse consequences of divorces will be discussed. The various theoretical models explaining both the movement toward divorce, as well as the divorce transition, will be described. Special attention will be given to the impact of divorce on children.

FACS 5137. Youth Violence - Intervention to Prevention (3 credits) — This course is designed to inform and train individuals in a variety

of fields that deal with children and youth. The course is a combination of defining the concept of violence in society, evaluating current research in the field, and looking at practical strategies for developing protective factors for youth. Students will view various media representations of violence patterns and solutions, review current literature, and listen to some brief lecture material. The majority of time will be spent on student interaction with each other and the instructor.

FACS 5167. Student Teaching: PreK to K (3 credits) — A supervised 150-hour practicum in an approved early childhood program. Seminars will be held to coordinate and evaluate experience. (Must be taken with HDAL 5617 Early Childhood Practicum.)

FACS 5217. Furniture Marketing (3 credits) — An overview of all aspects of furniture marketing in the United States. This course is designed to give the student a foundation in furniture marketing from the perspective of both the furniture manufacturer and the furniture retailer.

FACS 5417. Food Systems Operations (3 credits) — *Prerequisite: Departmental approval.* This course has been designated as a UIT-intensive course. Management principles, leadership, decision making, and control of food service operations. Includes human resource and financial management, utilization of current technology, and computer-assisted management control of the food service operation. (spring)

FACS 5427. Diet in Disease (I) (3 credits) — *Prerequisite: FACS 3465, HSCI 3020, or departmental approval.* Principles of nutrition and diet as they relate to disease states, and the application of principles of clinical nutrition as used in the prevention and treatment of disease, drug-nutrient interaction, and nutrition assessment. (fall)

FACS 5437. Diet in Disease (II) (3 credits) — *Prerequisite: FACS 3465, HSCI 3020, FACS 4427/5427, or departmental approval.* This course has been designated as both writing and oral intensive. Assessment, treatment, and nutritional management of the patient with complicated disease states. Nutritional risk screening and nutritional treatment options to meet varying disease states and stages, and the role of the dietitian and nutritional therapy are discussed. (spring)

FACS 5447. Advanced Nutrition (3 credits) — *Prerequisite: FACS 3465, HSCI 3020 or departmental approval.* A study of nutrition as the science that integrates life processes from the cellular level on through the multi-system operation of the total organism. The focus will be on current trends in normal biochemistry and physiological human nutrition. (fall)

FACS 5457. Nutrition Education (3 credits) — *Prerequisite: FACS 3430, 3465 or departmental approval.* Nutrition education designed for elementary, middle, and high school teachers, and others involved in nutrition. Nutrition concepts will be integrated with examples of instructional techniques to make nutrition challenging. Individual curriculum plans will be developed for integrating nutrition education with other school subjects, K-12.

FACS 5467. Quantity Food Procurement and Production (3 credits) — *Corequisite: FACS 3460 or departmental approval.* Application of menu writing and design, quantity food procurement, production planning, preparation, distribution, and evaluation in food service operations. Menu planning and analysis as the basis for control within the food service is emphasized, and sanitation and safety within the commercial food service operation are explored. This course has a three-hour lab which provides hands-on food service experiences for the students. (spring)

FACS 5497. Administration of Food Service Organizations (4 credits) — *Prerequisite: FACS 1410, 2420 or departmental approval.* Review of commercial and noncommercial food service operations. Includes facilities planning, integration, marketing, and management within the food service industry. There is an emphasis on comprehensive food service design from the mission to the actual layout and staffing of the facility. (fall)

FACS 5517. Demonstration Techniques (3 credits) — Application of the principles and techniques involved in demonstrations and presentations.

FACS 5537. Field Studies (3-9 credits) — *Prerequisite: Senior standing and departmental approval.* Supervised field studies in student's major area of interest.

FACS 5547. Corporate Etiquette (3 credits) — Designed to help students present themselves with confidence to outclass the competition. Topics covered include introductions, conversation skills, working a room,

business attire, dining in corporate America, wine selection, resume writing, interviewing, international business and more. Skills should help you obtain a job, advance to a higher position, and make career changes.

FACS 5657. Historical Interiors/Architecture II (1-3 credits) — *Prerequisites: This course is a prerequisite for a summer Study Tour; six hours earned in FACS and consent of the instructor.* Classroom and on-site study of interior and exterior architecture in various parts of the United States. Structured semi-independent study and travel.

FACS 5737. Occupational Family and Consumer Sciences Programs (3 credits) — *Prerequisites: FACS 4727, and departmental approval.* A comprehensive overview of occupational family and consumer sciences programs including: legislation and funding, labor laws, curriculum development, components of programs, HERO, advisory committees, placement and follow-up, program evaluation, and resource materials. This course is required for Occupational Home Economics Endorsements # 453, 451, and 452.

FACS 5957. Special Topics in Family and Consumer Sciences (3 credits) — Selected subjects in student's area of interest in areas not included elsewhere in course offerings; may be repeated for credit when content varies.

Family/Community Nursing Course Listing (FCNU) Courses for Graduate Students Only

FCNU/ALNU/PMNU 5019. Supervised Experience in Teaching (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with teaching assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

FCNU 5020. Family Systems (2 credits) — This course focuses on families across the life span who are experiencing developmental or situational transitions. The purpose is to increase the student's ability to assess, plan, intervene, and evaluate interventions with families facing developmental changes, family crises, and structural and functional problems. Emphasis is placed upon research methods to assess family behavior and plan clinical management.

FCNU 5021. Life Span Assessment and Clinical Management: Women's Health (2 credits) — *Prerequisites: ALNU 5009, 5010 and PMNU 5000.* This course focuses on nursing care of women experiencing health and developmental transitions. Biopsychosocial interactions during the childbearing cycle, as well as other health concerns of women which affect the family system, such as infertility and family planning, are examined. The role of the nurse at an advanced level of practice in various settings including underserved, rural, and urban populations is explored. Nursing strategies for illness prevention, health promotion, and clinical management of acute and chronic situational health crises are examined. (fall)

FCNU 5022. Life Span Assessment and Clinical Management: Women's Health Practicum (3 credits) — *Prerequisites: ALNU 5009, 5010 and PMNU 5000. Pre-corequisites: FCNU 5021, ALNU 5016, 5018.* This practicum is designed to provide the student with opportunities to deliver advanced nursing care to women, as individuals in families and in communities. Various primary care settings, including rural and urban, and underserved populations will be employed for clinical practice. The role of an advanced practice nurse in managing a caseload of clients in a selected setting is undertaken by the student in collaboration with nursing faculty and clinical preceptors. (fall)

FCNU 5023. Life Span Assessment and Clinical Management: Children and Adolescents (2 credits) — *Prerequisites: ALNU 5009, 5010 and PMNU 5000.* The focus of this course is on nursing care of families with children and adolescents who are experiencing health and developmental transitions. Biopsychosocial aspects of growth and development, health status, and environmental interactions are explored. The role of the nurse at an advanced level of practice in rural, urban, and underserved settings is analyzed. Nursing strategies are designed to promote health in children and adolescents and provide an avenue for intervention in situational health crises. (spring)

FCNU 5024. Life Span Assessment and Clinical Management: Children and Adolescents Practicum (3 credits) — *Prerequisite:* ALNU 5009, 5010 and PMNU 5000. *Pre-corequisites:* FCNU 5023, ALNU 5016, 5018. This practicum is designed to provide the student with opportunities to deliver advanced nursing care to children and adolescents in families and communities. Various primary care settings, including rural and urban, and underserved populations will be employed for clinical practice. The role of an advanced practice nurse is undertaken by the student in collaboration with nursing faculty and clinical preceptors. (spring)

FCNU/ALNU/PMNU 5029. Supervised Experience in Research (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with research assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

FCNU/ALNU/PMNU 5039. Supervised Experience in Administration or Service (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with administrative or service assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

FCNU/ALNU/PMNU 5900. Independent Study (1-6 credits) — Independent study in consultation with a member of the graduate nursing faculty. Directed study and/or research in an area for which the student has special interest and adequate preparation. (variable)

FCNU 5950. Internship in Advanced Nursing Practice (4 credits) — *Prerequisite:* All required clinical courses. This internship experience focuses on the synthesis of previously gained knowledge and skills in the provision of advanced nursing care to individuals, families, and communities. Emphasis is placed on health promotion, disease prevention, and clinical management of clients with common acute and chronic illness. (fall)

FCNU/ALNU/PMNU 5960. Thesis (1 - 6 credits) — (fall, spring, summer)

FCNU/ALNU/PMNU 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

FCNU 6014. Measurement of Clinical Outcomes (3 credits) — This course is designed to help students develop skills in systematic evaluation, and development of clinical outcome measures in order to improve health. (fall)

FCNU 6016. Collaborative Approaches to Practice (3 credits) — This course is designed to help the student understand the collaborative process, to develop skills in analyzing the politics of collaboration, and to evaluate related theoretical frameworks in order to provide leadership in the development of collaborative relationships. (summer)

FCNU 6030. Quantitative Methods in Nursing Research (3 credits) — Students in this course will complete in-depth comparisons of published quantitative nursing research, including examining philosophical perspectives, study design, instrumentation, sampling, and data analysis. Pragmatic considerations in implementing clinical nursing research will be analyzed culminating in development of a research proposal which will address a nursing research question using a quantitative methodology. (spring)

FCNU/ALNU/PMNU 6960. Doctoral Dissertation (1-12 credits) — *Prerequisite:* Successful completion of Qualifying Examination. Supervised research toward dissertation.

FCNU/ALNU/PMNU 6990. Readings and Research (1-3 credits, repeatable) — This course is required of all students who have completed 12 credits of Doctoral Dissertation (6960) but have not completed the dissertation and MUST be taken each semester (three credits) until the dissertation is completed. Additionally, students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus or dissertation MUST enroll for three credits of Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by the student's advisory committee in conjunction with other coursework, to receive credit for such activities as preparation of designated papers or development of research and scholarly skills that would be appropriately covered by other types of independent study.

Courses Co-listed in Undergraduate Catalog

FCNU 5037. Community Concepts for Public Health Nurses (3 credits) — *Prerequisite:* Licensed Registered Nurse or permission of the instructor. This course is primarily for nurses working in the public health field. Principles of community assessment, program development and evaluation will build on prior work experiences of the students. Development of community partnerships and community leadership will be emphasized.

FCNU 5507. Social Concerns and Women's Health (3 credits) — This course addresses the historical perspectives and current status of women's health, special concerns related to women's health and the economic, political, and cultural factors which impact women's health.

FCNU 5807. Global Health Issues (3 credits) — *Prerequisite:* Admission to the Nursing major or permission of instructor. This course is designed for students interested in increasing their understanding of international and cross-cultural health. The course focuses on issues and skills that will enhance the practice of health professionals, especially those intending to apply their skills in settings outside the U.S.A. (spring)

FCNU 5907. International Primary Health Care Practicum (3 credits) — *Prerequisite:* Global Health Issues course or the equivalent. Undergraduate nursing students must have completed junior level nursing courses or obtain permission of instructor. This course is designed for participants to directly experience cross-cultural and international health care in order to increase their health care delivery skills and understanding of other health care systems. Students will travel and live in the host culture. All travel related costs are met by the student. (spring, summer)

FCNU/ALNU/PMNU 5957. Special Topics in Nursing (1-6 credits) — *Prerequisite:* Permission of the instructor. Special topics related to nursing and health care will be presented. Course may include didactic and experiential methods of instruction. May be repeated for credit if course content is significantly different or advanced.

Finance Course Listing (FNCE) Courses for Graduate Students Only

FNCE 5000. Essentials of Finance (3 credits) — *Prerequisite:* ACCT 5000 or equivalent. For M.B.A., M.Acc., and other graduate students with no previous training in finance. An introduction to major finance topics, including the corporation and its institutional environment, analysis of financial statements, operating and financial leverage, interest factors, capital budgeting, and working capital management.

FNCE 5430. Financial Management (3 credits) — *Prerequisite:* FNCE 5000 or equivalent. Application of analytical techniques to the firm's investment, financing, and dividend decisions. Topics include capital budgeting, capital structure, short-, intermediate-, and long-term financing, asset valuation techniques, and introduction to finance theory and literature.

FNCE 5470. Seminar in Banking (3 credits) — *Prerequisite:* FNCE 5430 or permission of instructor. Selected topics in banking.

FNCE 5490. Security Analysis and Portfolio Management (3 credits) — *Prerequisite:* FNCE 5430. Integration of modern portfolio selection models with traditional valuation theory and analysis. Topics include financial statement analysis, industry and company analysis, capital market theory, valuation theory, and evaluation of portfolio performance.

FNCE 5600. Case Studies in Banking (3 credits) — *Prerequisite:* *ECON 5000, FNCE 5000, or permission of instructor.* An analysis of the decision processes utilized by major banks in making decisions concerning funding, lending, and investing. There is extensive use of readings, case analyses, and participation in a banking simulation, which will enable students to view banking operations from the perspective of bank manager.

FNCE 5900. Independent Study in Finance (1-3 credits) — A course designed for graduate students who, under the direction of a finance faculty member, wish to engage in independent research or an intensive study of subjects not covered in other available courses. Prior departmental and college approval is needed.

Courses Co-listed in Undergraduate Catalog

FNCE 5447. Banking and Financial Intermediation (3 credits) — *Prerequisites:* *FNCE 3220 and ECON 3310.* The working of financial markets and institutions with special reference to banking.

FNCE 5597. International Financial Management (3 credits) — *Prerequisite:* *FNCE 3300 or 5000.* Financial problems of multinational corporations including the theory of capital movements, foreign exchange markets, concepts of the balance of payments mechanisms, trade policy, and the functioning of the international monetary systems.

FNCE 5617. Applied Portfolio Management (3 credits) — *Prerequisites:* *FNCE 3300, 3500, 4560.* This course provides a solid practical foundation in Investment and Portfolio Management through the management of a portfolio of funds provided by the Tennessee Valley Authority (TVA).

FNCE 5697. International Investments (3 credits) — *Prerequisites:* *Undergraduate students - FNCE 3220 and 3300; Graduate students - FNCE 5000 and either BADM 5300 or 5360, or permission of instructor.* To immerse you in the world of international investments. Advanced course designed to equip students with the theoretical background, quantitative skills, and practical tools required to be successful managers in the field of international investments. Topics will include a review of parity conditions; foreign exchange rate forecasting; benefits of international diversification; international asset pricing; international equity markets, instruments, concepts, and techniques; emerging stock markets; futures, options, international performance analysis; structuring the international process.

FNCE 5957. Topics in Finance (3 credits) — *Prerequisites:* *Senior.* This course gives students an opportunity to study special problems and new developments in the field of finance.

French Course Listing (FREN) Courses for Graduate Students Only

FREN 5900. Special Studies in French (1-6 credits) — Designed to provide opportunities for study in areas not provided for in the regular course offerings for graduates. Students desiring to enroll should obtain permission from the instructor.

Courses Co-Listed in Undergraduate Catalog

FREN 5017. Advanced French Grammar (3 credits) — *Prerequisite:* *FREN 2020 or instructor's permission.* This course focuses on an in-depth review of troublesome aspects of French grammar complemented by contextual analyses drawn from cultural and/or literary readings selections.

FREN 5117. French Drama from 1600 to the Present (3 credits) — Selected plays from major French dramatists from 1600 to the present.

FREN 5217. 16th Century French Literature (3 credits) — Selected works by the principal 16th century writers and poets of the Renaissance.

FREN 5317. 17th Century French Literature (3 credits) — Selected works from the prose, poetry, and theatre of the principal authors of the Classical period.

FREN 5337. French Phonetics and Pronunciation (3 credits) — A study of the international alphabet, incorporating phonetic dictation and transcription.

FREN 5417. 18th Century French Literature (3 credits) — Selected works of the French philosophers and authors of the Age of Reason.

FREN 5517. 19th Century French Literature (3 credits) — Selected works from the poetry and prose of the major authors of French Romanticism.

FREN 5617. 20th Century French Literature (3 credits) — Selected works from the prose and poetry of major French authors of the 20th century.

FREN 5957. Topics in French (3 credits) — *Prerequisite:* *Permission of the instructor.* This course gives students an opportunity to study special problems and new developments in the field of French.

Geography Course Listing (GEOG) Courses for Graduate Students Only

GEOG 5000. Quantitative Techniques (3 credits) — Statistical and mathematical analysis of spatial distributions and areal data.

GEOG 5010. Location Theory (3 credits) — Classical and contemporary theories concerned with the spatial organization of population and economic activity.

GEOG 5110. Seminar Physical Geography (3 credits) — A seminar in current studies in physical geography and their significance in explaining the surface configuration of the earth.

GEOG 5140. Seminar Regional Geography (3 credits) — Under this cover title, individual courses will be offered in such areas as Latin America, Europe, United States, the South, Africa, and the U.S.S.R. May be repeated if subject matter changes.

GEOG 5210. Geography of Settlement and Land Use (3 credits) — A study of settlements, settlement features, settling processes, and associated land use.

GEOG 5310. Evolution of Geoscience Thought (3 credits) — A study of the development of geography as a discipline and the philosophies accompanying the development.

GEOG 5320. Geographic Information Systems Projects (3 credits) — *Prerequisites:* *GEOG 4217 and 4317 or permission of instructor.* This course is designed to further enhance the learning skills of students interested in a career involving the use of GIS. The course will consist of a series of supervised student projects that will reflect the types of GIS applications encountered in the world outside of academia. Lecture and laboratory.

GEOG 5901. Independent Studies (3 credits) — *Prerequisite:* *Permission of department chair is required.*

GEOG 5902. Independent Studies (3 credits) — *Prerequisite:* *Permission of department chair is required.*

GEOG 5960. Thesis in Geography (3 credits)

GEOG 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

GEOG 5989-99. Cooperative Education (variable) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Businesses, industries, and government agencies provide opportunities for planned and supervised work assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees.

Courses Co-listed in Undergraduate Catalog

GEOG 5007. Geography of the United States (3 credits) — A regional study of the physical and cultural elements of the United States.

GEOG 5077. Seminar in Geography of Southern Appalachia (3 credits) — A seminar in the use of geographic methodology in the study of regional Appalachian issues.

GEOG 5087. Recreation and Tourism Planning (3 credits) — A survey of recreation and tourism in the United States and their effect upon regional economic development and planning at the local and regional levels.

GEOG/URBS 5107. Urban Geography and Planning (3 credits) — A geographical analysis of cities and urban regions. Urban growth patterns, location and interaction, analysis, planning for urban region, and travel behavior are emphasized.

GEOG 5117. Resource Management (3 credits) — The study of cultural attitudes, conceptual approaches, and evaluation techniques in resource management. Analysis of selected resource issues at various areal scales.

GEOG 5217. Geography Information Systems (3 credits) — *Prerequisite: GEOG 3210 or permission of the instructor.* The field of GIS is relatively new and expanding and is concerned with techniques and theory of cartographic and spatial data rectification and enhancement, and spatial information extraction.

GEOG 5227. Remote Sensing (3 credits) — *Prerequisite: GEOG 3210 or permission of instructor.* A systematic treatment of elements involved in interpreting, measuring, and mapping of images that appear on aerial photographs.

GEOG 5237. Advanced Remote Sensing (3 credits) — *Prerequisite: GEOG 3210 or permission of instructor.* A study of different types of remotely sensed images and their interpretation.

GEOG 5257. Geography of Soils (3 credits) — An introduction to soil science. Particular attention is focused on soil morphology, soil classification, and the study of distributional patterns of soils and their relationships to other geographical elements.

GEOG 5267. Hydrology (4 credits) — The study of water as it occurs in all phases of the hydrologic cycle and the analysis of currently developing water problems on the local, regional, and national level.

GEOG 5307. Regional Geography (3 credits) — Under this cover title, individual courses will be offered in such areas as Europe, Latin America, Asia, Soviet Union, and Africa. Course may be repeated as subject matter changes.

GEOG 5317. Advanced Geographic Information Systems (3 credits) — *Prerequisite: GEOG 5217.* A creditical examination of the contemporary issues involved with Geographic Information Systems and digital spatial data. One-half of the course content will be dedicated to practical training on the sophisticated vector-based GIS software called Arc/Info. A hands-on understanding of the nature and functionality of this software will be acquired within a workstation computer environment.

GEOG 5417. The Teaching of Geography and Earth Science (3 credits) — *Prerequisite: Admission to MAT Program.* A course in methods and materials for teaching geography in grades seven-12, which will include teaching experiences in an area school. This course earns education credit only and does not meet requirements for a major or minor in geography.

GEOG 5807. Advanced Field Methods in Geography (3 credits) — A study of methods of measuring, recording, and synthesizing field data in geography.

GEOG 5957. Topic in Geoscience (1-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in geography. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Geology Course Listing (GEOL) Courses for Graduate Students Only Courses Co-listed in Undergraduate Catalog

GEOL 5587. Engineering Geology (4 credits) — *Prerequisite: GEOL 1040, MATH 1920 or permission of instructor.* Real-world applications of geology in the field of engineering. Topics include: soil properties, floods and flood control, dams, stream management and reconstruction, erosion and erosion control, mass movement, municipal waste treatment, septic systems, radioactive waste disposal, tunnels, geologic applications of explosives, permafrost, strip

mining and mine reclamation, earthquakes, coastal management, etc. Lab exercises with actual projects, and applications beyond the classroom. Weekend field trips included. Two lectures and two labs weekly.

GEOL 5617. Structural and Engineering Geology (4 credits) — *Prerequisite: GEOL 1040, MATH 1920 or permission of instructor.* Focus is on the description and analysis of geological structures within the Earth's crust, with an introduction to global tectonics. Includes the description of geological structures; the kinematics and dynamics of folding and faulting; stress, strain, deformation and rheology; introduction to dislocation theory; principles of plate tectonics; micro-structural analysis; and selected orogenic systems of the world. Three lectures and two laboratory sessions weekly.

German Course Listing (GERM) Courses for Graduate Students Only

GERM 5901. Special Studies in German (1-6 credits) — Designed to provide opportunities for study in areas not provided for in the regular course offerings for graduates. Students desiring to enroll should obtain permission from the instructor.

Courses Co-Listed in Undergraduate Catalog

GERM 5137. The Age of Goethe (3 credits) — Selected works of the principal authors of the Storm and Stress, Classical, and Romantic periods in German Literature.

GERM 5147. The German Short Narrative (3 credits) — Selected short-prose works of representative authors of the late 19th and the 20th century.

GERM 5157. Austrian Literature (3 credits) — Selected works of principal Austrian writers and their impact on German literature.

GERM 5167. Advanced German Grammar (3 credits) — In-depth review of troublesome aspects of German grammar. Review of grammar in context as well as practice in composition and translation.

GERM 5957. Topics in German (3 credits) — *Prerequisite: Permission of the instructor.* This course gives students an opportunity to study special problems and new developments in the field of German.

Counseling Course Listing (HDAL) Courses for Graduate Students Only

HDAL 5010. Principles and Administration of Counseling and Consultation Services (3 credits) — A survey of the principles and professional activities required for the effective practice and/or administration of a comprehensive guidance, counseling, and consultation program in schools. Emphasis is placed on the counselor's administrative and consultative roles and functions as defined by the American School Counselors' Association and other professional groups within the school system and the community. Field experiences interviewing practicing school counselors and teachers are required as well as classroom observations. This course is also designed to acquaint the student with theories and techniques used when consulting. Role playing of consultation in various settings and field experience will be required.

HDAL 5100. Human Relations and Group Processes (3 credits) — This course will provide students with a knowledge of group theory and practice, allow students to integrate group theory and practice, increase personal and socio-cultural awareness through a growth group experience, and develop group facilitation and leadership skills. (fall, spring)

HDAL 5110. Social and Cultural Foundations in Counseling (3 credits) — This course is designed for counselors to develop competencies and awareness for working with people of diverse groups in society. Students will have opportunities to develop awareness of their own cultural values and biases, to study the prevalent beliefs and attitudes of different cultures, and to understand the impact of oppression on individuals. (fall, spring)

HDAL 5150. Career Development: Theory, Research and Practice (3 credits) — *Prerequisites: HDAL 5550 (or 5420) and HDAL 5562 (or 5421).* Students will study major theories and research related to career

development throughout the life span. Students will also investigate the use of career information systems and career and educational resources for counseling program planning and implementation. (fall, spring)

HDAL 5200. Advanced Educational Psychology (3 credits) — A study of psychological and educational principles relevant to the teaching/learning process. Methods and concepts engaging practical application are emphasized.

HDAL 5220. Advanced Adolescent Psychology (3 credits) — This course familiarizes students with a broad range of topics that are pertinent to physical, cognitive, and social development during adolescence.

HDAL 5230. Advanced Developmental Psychology (3 credits) — A survey of the principles of human development throughout the life span.

HDAL 5250. Counseling in Community Agencies (3 credits) — *Prerequisite:* A course in abnormal psychology; This course is a survey of theoretical and applied information for counselors working in community mental health agencies. Course content includes history and philosophy, roles of workers, organizational and delivery systems, program development and evaluation, consultation, specific populations, interviewing, prevention and intervention strategies, and current issues related to agency counseling. (spring, every other year)

HDAL 5260. Principles of Teaching and Learning (3 credits) — This course will provide study of major theories of learning and principles of teaching. Significant emphasis is placed on the application of these theories to classroom practice, with attention given to teaching-learning strategies in specific content areas. Educators are provided with the opportunities to develop and reflect upon their own theories of teaching and learning in their classrooms.

HDAL 5400. Consultation Theories and Techniques (3 credits) — *Prerequisites:* HDAL 5550 (or 5420) and HDAL 5562 (or 5421). This course is designed to acquaint students with theories and techniques used in the consultation process.

HDAL 5420. Family Therapy I (3 credits) — An introduction to the basic philosophical and psychological assumptions, rationales, techniques, and methods of implementation underlying major theoretical approaches to marriage and family therapy. (fall)

HDAL 5421. Family Therapy II (3 credits) — *Prerequisite:* HDAL 5420. A continuation of study of the basic philosophical and psychological assumptions, rationales, techniques, and methods of implementation underlying major theoretical approaches to marriage and family therapy. (spring)

HDAL 5422. Counseling with Couples (3 credits) — A continuation of study of the basic philosophical and psychological assumptions, rationales, techniques, and methods of implementation underlying major theoretical approaches to marriage and family therapy. (fall, every other year)

HDAL 5423. Postmodern Approaches to Family Therapy (3 credits) — *Prerequisite:* HDAL 5420. An introduction to postmodern approaches to understanding and working with couples and families. An examination of differences and similarities between modernist and postmodern paradigms and their implications for clinical practice. (spring, every other year)

HDAL 5430. Legal and Ethical Issues in Counseling (3 credits) — This is a seminar designed to acquaint students with legal, professional, and ethical issues that affect the practice of counseling and therapy. These issues include (1) the influence of the personal characteristics and values on the counseling process; (2) confidentiality, privileged communication and the rights of clients; (3) malpractice, (4) counselor training, competence, and licensure, (5) diagnosis in counseling, and (6) psychopharmacology used in treatment. (fall, summer)

HDAL 5431. Family Therapy Applications (3 credits) — This course in family therapy will focus on using clinical interventions appropriate to various family circumstances where dysfunctional patterns may arise. Emphasis will be upon a systemic understanding of various family situations and application of family therapy techniques from the major family therapy models. (spring, summer)

HDAL 5440. Treating Trauma and Abuse in the Family (3 credits) — This course will examine current research and theory regarding sexual and physical abuse of children and partner violence, including causes, dynamics, and consequences. Emphasis will be given to treatment approaches and techniques in working with couples and families involved in abusive situations. (fall)

HDAL 5549. Substance Abuse: Counseling Individuals and Families (3 credits) — This course will train counselors to work with individuals and families who have substance abuse disorders. The course will focus on the following areas of substance abuse: legal and ethical issues; physiology; psychological, cultural, and gender factors and issues; counseling techniques with individuals and families; and preventative measures for substance abuse. (variable)

HDAL 5550. Counseling I (3 credits) — An introduction to the basic philosophical and psychological assumptions, rationales, techniques, and methods of implementation underlying major theoretical approaches to counseling and psychotherapy. (fall, spring)

HDAL 5561. Counseling Techniques with Children (3 credits) — *Prerequisite:* HDAL 5420 or 5550. Through lecture, role-play, video feedback and the use of creative (expressive) arts, students will be provided an opportunity to develop skills at individual, small and large group counseling and therapy, play therapy, and family interventions, including parent education.

HDAL 5562. Counseling II (3 credits) — *Prerequisite:* HDAL 5550. A continuation of study of the basic philosophical and psychological assumptions, rationales, techniques, and methods of implementation underlying major theoretical approaches to counseling and psychotherapy. (fall, spring)

HDAL 5570. Supervised Counseling Practicum (3 credits) — *Prerequisites:* Admission to program, permission of instructor, HDAL 5100, 5430, 5550 (or 5420), and/or current enrollment in 5562 (or 5421). This is an experiential course in which the student will apply individual and group counseling skills. Field experiences will be required. It will involve a semester of counseling experience under the direct supervision of an East Tennessee State University faculty member.

HDAL 5572. Seminar in Counseling Issues (3 credits) — This is a seminar in which those in counseling and related fields can upgrade their knowledge in a number of related areas. Each topic will be presented by a professional who is a specialist in that particular area. Topics could include satanic worship, gangs, bereavement, AIDS, gays and lesbians, family violence, sexual abuse, and the use of psychodrama and the creative arts. (variable)

HDAL 5575. Advanced Group Processes (3 credits) — *Prerequisite:* HDAL 5100. Construction, delivery, and facilitation of group counseling dynamics at an advanced level. Students will participate in an interpersonal examination of behavior in a group setting and derive implications for group facilitation from both the experiential and didactic aspects of the course. (variable)

HDAL 5721. Trends and Issues in Higher Education (3 credits) — Current trends and issues in higher education and their historical antecedents will be explored. Emphasis is directed toward the continual challenges and opportunities higher education faces in a democratic and pluralistic society and the issues encountered in meeting them.

HDAL 5722. Student Development and the College Environment (3 credits) — This course is designed to familiarize students with major theories of student development and apply key theoretical concepts that address students' cognitive, intellectual, identity, personality, ethical, moral, career and social development during the college years. Issues that reflect the diversity, complexity, and change in higher education today are also examined. Emphasis is placed on examining student needs, satisfaction and cultures; the impact of campus environments on student development; and the analysis of programs/services outcomes.

HDAL 5820. Psychological Assessment of Personality in Counseling (3 credits) — *Prerequisites:* a course in abnormal psychology, HDAL 5817, HDAL 5550, and HDAL 5230. An examination of the construction and purpose of the principle objective and projective personality tests used in psychological counseling. Emphasis and practice will be on administering, interpreting, and report writing. Current issues in personality assessment will be discussed.

HDAL 5830. Individual Mental Testing (Also Psychology 5830) (4 credits) — *Prerequisites: a course in abnormal psychology, HDAL 5817, HDAL 5550, and HDAL 5230.* This course will instruct students in the administration and interpretation of the WAIS-III, WISC-III, and McCarthy Scales, and familiarize students with other individual mental tests, including the Kaufman ABC and the Stanford-Binet IV. Attention is also given to procedures for writing psychological evaluations and reporting test results to examinees. Issues related to assessment, such as the nature of intelligence and the heritability of intelligence, are examined. Students are required to administer and interpret various individual mental tests.

HDAL 5880. Internship (3 - 6 credits) — *Prerequisites: HDAL 5570, and approval of the program option coordinator.* The internship is designed to provide students with on-the-job experience under the supervision of a fully trained professional in an appropriate setting. Internships are subject to the availability of an appropriate setting and position openings available. In order to accommodate students, students must apply for internship at least one full semester in advance. (every semester)

HDAL 5960. Thesis (3 credits) — *Prerequisite: EDFN 5950.* (every semester)

HDAL 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-Listed in Undergraduate Catalog

HDAL 5817. Introduction to Psychological Testing (3 credits) — *Prerequisite: a course in statistics.* A history and overview of the standardized evaluation methods commonly used in the assessment of individuals and groups. Topics covered are validity, reliability, and statistical concepts for the evaluation and interpretation of test data. The student is given an overview of ability tests, interest tests, and personality tests. (fall, summer)

HDAL 5957. Special Topics in Human Development and Learning (3 credits) — (every semester)

History Course Listing (HIST) Courses for Graduate Students only

HIST 5010. Studies in United States History (3 credits) — Directed research in selected topics in the history of the United States. (every semester) May be repeated.

HIST 5020. Studies in European History (3 credits) — Directed research in selected topics in European history. (every semester) May be repeated.

HIST 5030. Studies in World History (3 credits) — Directed readings in selected topics in the history of areas other than the United States or Europe. (every semester) May be repeated.

HIST 5900. Independent Studies (1-3 credits) — Independent reading, research, and writing in selected topics on the graduate level. (every semester)

HIST 5940. Studies in Historiography (3 credits) — This course is a study of selected historians and their interpretations. (spring)

HIST 5950. Introduction to Historical Research (3 credits) — The objective of this course is to familiarize graduate students with research methodology and professional standards shared by practitioners in this discipline. This training is fundamental for those who expect to terminate their formal education with an M.A. as well as those who anticipate the pursuit of a Ph.D. in history. (fall)

HIST 5960. Thesis (3 credits)

HIST 5990. Reading and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

HIST 5989-99. Cooperative Education (variable credit) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Businesses, industries, and government agencies provide opportunities for planned and supervised work assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees.

Courses Co-listed in Undergraduate Catalog

HIST 5017. Beginnings of America (3 credits) — A history of the establishment of European settlements in America and the development of those colonies in the 16th and 17th centuries.

HIST 5037. The American Revolution (3 credits) — A study of the origins and development of revolutionary sentiment in 18th century America.

HIST 5047. The Early Republic (3 credits) — A study of the Federalist Period, the Jeffersonian Revolution, and the War of 1812.

HIST 5057. The Age of Jackson (3 credits) — A study of the era of good feelings, the age of Jackson, sectionalism, and territorial expansion to the eve of the Civil War.

HIST 5067. The Civil War (3 credits) — An advanced course in the history of the Civil War with emphasis upon secession; economic and military mobilization; battles and campaigns; and the cultural, diplomatic, and political developments in the period from 1861 to 1865.

HIST 5097. The Emergence of Modern United States (3 credits) — A study of the rise of big business, big labor, big government, and the agrarians in the late 19th century; the Progressive Movement, World War I, League of Nations and the Depression.

HIST 5107. Recent United States, 1935-Present (3 credits) — A study of the New Deal, World War II, the significant changes in American society since the war, and the exercise of great power status in the international affairs in the third quarter of the 20th century.

HIST 5127. Social and Intellectual History of U.S. to 1877 (3 credits) — A study of selected and representative social, cultural, and intellectual themes in American history from the colonial period to the end of Reconstruction in the national period.

HIST 5137. Social and Intellectual History of U.S. Since 1877 (3 credits) — A study of selected and representative social, cultural, and intellectual themes in American history from the end of Reconstruction to the present.

HIST 5147. The Old South, 1607-1860 (3 credits) — An advanced course in the history of the South from colonial times to the Civil War with emphasis upon economic, social, and political developments, including the slavery controversy.

HIST 5157. The South Since 1865 (3 credits) — A study of the recent South with special attention to its politics, economy, society, culture, and relationship to national history.

HIST 5167. History of the Southern Appalachians (3 credits) — A study of the political, economic, social, and cultural developments in Southern Appalachia from settlement to the 20th century.

HIST 5177. The West in the Life of the Nation (3 credits) — A study of westward expansion and the impact of the frontier on American institutions from the Old Southwest and Northwest frontiers to the Pacific Coast.

HIST 5207. Ancient Religions (3 credits) — A study of the origins, development, and function of religion in the ancient world of the Middle East, the Indian subcontinent, Greece and Rome. The course will cover the religions of ancient Egypt, Mesopotamia, Palestine, Greece and Rome, as well as Gnosticism, Jainism, and Zoroastrianism.

HIST 5217. History of Ancient Greece (3 credits) — A study of ancient Greece from its origins in the Bronze Age through the Hellenistic Age, with special emphasis on the political, philosophical, and intellectual ideas which form the basis of Western civilization.

HIST 5227. History of Rome (3 credits) — A survey of ancient Rome from its origins to the fourth century A.D., including the Regal period, the struggle of the Orders, the growth of the Republic, Roman institutions, the Roman conquest of Italy, the fall of the Republic and the growth of autocracy, adjustments in the Empire, the early Christian church, and the culture of Rome and its subject people.

HIST 5237. Women in the Ancient World (3 credits) — A study of the history and circumstances of women in antiquity, including the cultures of Egypt, Mesopotamia, Palesint, Greece and Rome.

HIST 5247. History of Women in U.S., Settlement to 1945 (3 credits) — An investigation of the social, economic, and political roles of women in the life of the nation, from European contact with Native Americans to the end of World War II.

HIST 5327. Expansion of Europe Overseas, Since 1492 (3 credits) — A study of the origins of European expansion, the creation of settler colonies, the “new imperialism” of the nineteenth century, and the impact of these events on non-European peoples and the modern world.

HIST 5377. Intellectual History of Europe Since the French Revolution (3 credits) — A study of the history of European thought and culture from the French Revolution to the present day.

HIST 5387. History of the Holocaust (3 credits) — A study of the background and origins of the Holocaust, including the legacy of anti-Semitism in Christian Europe and the emergence of racial anti-Semitism, the impact of World War I, Hitler's ideology, and the racial ideas of the Nazi state. Emphasis will also be put on the decision for and implementation of the Final Solution, with emphasis on the perpetrators, victims, and bystanders, as well as how the initially limited Nazi killings expanded into the Holocaust as we know it. Finally, the meaning and possible uniqueness of the Holocaust will be explored.

HIST 5507. England to 1714 (3 credits) — A survey of English history during the 16th and 17th centuries, with emphasis upon events which greatly influenced the world at large.

HIST 5517. England, 1714 to Present (3 credits) — A study of British history from 1688 to the present with primary attention directed to the political, economic, and social changes that led the nation from an agrarian and aristocratic kingdom to an industrial and democratic state in the 20th century.

HIST 5607. History of Russia to 1917 (3 credits) — A study of politics, society, and culture in Russia from Kievan Rus to the end of tsarism, with emphasis on the latter period.

HIST 5617. History of Russia Since 1917 (3 credits) — A study of Russia, with emphasis on politics, ideology, culture, and economic development, from the collapse of tsarism and the Russian Revolution through the Soviet period and the post-Soviet period, including its successor states.

HIST 5627. Modern Germany (3 credits) — A study of the causes and consequences of German unification; the Bismarkian period, the Wilhelminian Age; Weltpolitik and World War I, the Weimar Republic, Hitler and the Nazi Era; World War II and its aftermath. Emphasis will be placed on political, economic, social, and diplomatic developments.

HIST 5707. East Asia Since 1900 (3 credits) — The transformation of China and Japan from regional to international economic powers.

HIST 5717. Modern Middle East, 1800-Present (3 credits) — A study of the Middle East from Napoleon through Khomeini, with emphasis on modernization trends and Islamic responses.

HIST 5727. Modern Africa (3 credits) — An advanced, in-depth examination of African social, economic, political, cultural, and intellectual history since about 1800, with special emphasis on the reestablishment of African independence.

HIST 5827. America in the 1960s (3 credits) — The domestic history of the United States during the 1960s, with emphasis on the era's social and cultural forces: Civil Rights (Martin Luther King Jr., Malcolm X, the Black Power Movement), Social Policy (John F. Kennedy's New Frontier and Lyndon B. Johnson's Great Society), the impact of Vietnam and 1968 on the home front (Antiwar Protests, the Counterculture, Student Rights), Modern Feminism, environmentalism, and the popular music and literature of the decade.

HIST 5837. American Women Since World War II (3 credits) — An examination of the social, political, economic, commercial, legal, sexual, and racial issues faced by American women since the end of World War II. Topics will include the domestic containment of the 1950s, Betty Friedan's 1963 groundbreaking study, *The Feminine Mystique*, birth control, Roe V. Wade, the origins of the protest movements, women's liberation, defeat of the Equal Rights Amendment, and the rise of radical and conservative feminism.

HIST 5847. 20th Century American Sports (3 credits) — An interdisciplinary study of sport in its historical context: the formation and evolution of various sports, including their economic, political, legal, gender, racial, and sexual aspects, as well as their treatment in popular literature and films.

HIST 5927. World War II in Europe (3 credits) — A study of the background, origins, progress, and consequences of World War II in Europe. Emphasis will be placed not only on political, diplomatic, and military aspects of the war, but also on its broader social, economic, technological, and ideological ramifications.

HIST 5937. World War II in the Pacific (3 credits) — A study of the origins, course and consequences of World War II in the Pacific. Emphasis will be placed not only on the political, diplomatic, and military aspects of the war, but also on the racial, technological, and ideological ramifications. The course will begin with the outbreak of the Sino-Japanese War 1937 and end with the beginning of the Cold War and the rebuilding of Japan.

HIST 5957. Topic in... (2-6 credits) — *Prerequisites: Dependent on subject matter.* Selected topics of current interest in history. Offered upon sufficient demand for specified subject matter. Consultation with the instructor is recommended before enrollment. (every semester) May be repeated.

Health Sciences Course Listing (HSCI) Courses for Graduate Students Only

HSCI 5100. Pathogenic Microbiology (2 credits) — *Prerequisite: Introductory Pathogenic Microbiology.* Advanced study of the specific biochemical, pathological, and physiological mechanisms by which infectious agents produce disease. Two hours lecture per week. (spring)

HSCI 5101. Pathogenic Microbiology Laboratory (2 credits) — *Corequisite: Concurrent registration in Pathogenic Microbiology 5100.* Laboratory deals with procedures used for isolation and identification of pathogenic agents. Two two-hour laboratories per week. (spring)

HSCI 5110. Immunology (2 credits) — *Prerequisite: Introductory Immunology recommended.* An advanced course in immunology dealing with the cellular and molecular mechanisms involved in induction and regulation of cellular and humoral immune responses. Experimental basis of modern immunology is stressed. Two hours lecture per week. (fall)

HSCI 5111. Immunology Laboratory (2 credits) — *Prerequisite: Introductory Immunology 5110.* Introduction to techniques used in elucidating the mechanisms of induction and regulation of immune responses and other immunological phenomena. Two two-hour laboratories per week. (spring)

HSCI 5160. Advanced Virology (3 credits) — *Prerequisite: Introductory Virology.* A discussion of current areas of animal virus research with emphasis on newer research techniques. Three hours lecture per week. (fall)

HSCI 5900. Independent Studies (1-4 credits) — *Prerequisites: Permission of instructor and department chair.* Independent research on a specific problem under the supervision of a faculty member. A plan of the research must be approved in advance of registration. Candidates for M.S. degree may retake for a total of four credits. (as needed)

HSCI 5957. Special Topics in Health Sciences (2-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics in health sciences. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

HSCI 5960. Thesis (3 credits)

HSCI 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

HSCI 5989-99. Cooperative Education (variable credit) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Businesses, industries, and government agencies provide opportunities for planned and supervised work assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees. (as needed)

Courses Co-listed in Undergraduate Catalog

HSCI 5067. Neurology (4 credits) — *Prerequisites: Human or Vertebrate Anatomy and Physiology.* A basic study of neuroanatomy and neurophysiology, including normal control mechanisms and some abnormalities. Laboratory work consists of a study of preserved human brains and comparison of these brains with other animals. The spinal cord and peripheral parts of the nervous system are studied using slides and models. Selected neural mechanisms are illustrated using test animals. Two hours lecture and two two-hour laboratories per week. (spring)

HSCI 5607. Bacterial Physiology (4 credits) — *Prerequisites: General Microbiology and Organic Chemistry required; Biochemistry recommended.* A consideration of the biochemical nature of the growth of microorganisms. Includes studies of bacterial cytology, enzymes, nutritional requirements, metabolic pathways, and genetic regulation. Laboratory includes studies of selected aspects of bacterial metabolism and physiology. Two hours lecture and two hours laboratory per week. (spring)

HSCI 5747. Mycology (4 credits) — *Prerequisites: General Microbiology and Organic Chemistry.* A survey of the fungi with emphasis on structure, genetics, growth and nutrition, classification, ecology, and economic importance. In laboratory the fundamentals of general mycology and the procedures used for isolation and identification of fungi, including yeasts, molds, and actinomycetes, are investigated. Two hours lecture and two two-hour laboratories per week. (fall)

HSCI 5957. Topics in.... (2-6 credits) — *Prerequisites: Depend on subject; permission of instructor.* Selected topics of current interest in microbiology. Offered on sufficient demand for specific subject. May be repeated for different topics. (as needed)

**Interdisciplinary Gerontology Course Listing (IDGE)
Courses for Graduate Students Only**

IDGE 5000. Introduction to Normal Aging: An Interdisciplinary Approach (3 credits) — This course provides an introduction to some of the major conceptual themes and variety of pertinent issues within the field of gerontology from an interdisciplinary perspective. The course gives participating students a common body of knowledge from which they can pursue specific aspects related to the field of aging and the aging process. (fall)

IDGE 5500. Advanced Seminar in Gerontology: An Interdisciplinary Approach (4 credits) — This course provides a culminating experience for students in the gerontology certificate program. Students will participate in either a research or practice experience and will share progress from their work in this seminar. (spring)

**Journalism Course Listing (JOUR)
Courses for Graduate Students Only**

JOUR 5900. Independent Study in Journalism (1-3 credits)

Courses Co-listed in Undergraduate Catalog

JOUR 5107. Reporting Public Affairs (3 credits) — *Prerequisite: A grade of 2.0 or better in JOUR 2130.* Instruction and practice in coverage of local, county and state governments, the court system, and law enforcement agencies. May include field trips for which students must defray personal expenses.

JOUR 5957. Topics in Journalism (2-6 credits)

**Language Course Listing (LANG)
Courses Co-Listed in Undergraduate Catalog**

LANG 5417. Teaching of Modern Languages (3 credits) — For M.A.T. students preparing to teach French, German, and Spanish. Topics include methodology and current trends in second language education and their application.

**Master of Arts in Liberal Studies Course Listing (MALS)
Courses for Graduate Students Only**

MALS 5000. Foundations in Liberal Studies (1 credit) — An introduction to graduate liberal studies and its theoretical framework for the student's educational plan in the MALS program. Students will complete a plan of study that includes area(s) of emphasis. Must be taken during the first semester in the MALS program.

MALS 5100. Introduction to Interdisciplinary Study (3 credits) — An introduction to the nature and value of interdisciplinary study. Literature, a movie or play, science and/or social science, history, and philosophy will be brought to bear on the study of a topic.

MALS 5200. Seminar in Liberal Studies (3 credits) — An examination through an interdisciplinary approach of a major issue, historical period, or thematic study in the liberal arts. The particular subject will vary from semester to semester. May be cross-listed with another academic department.

MALS 5400. Seminar in Interdisciplinary Research (3 credits) — *Prerequisite: MALS 5100.* An introduction to and exploration of interdisciplinary research with an emphasis upon qualitative methodologies. Students may develop proposals for MALS 5950: Special Project in Liberal Studies or MALS 5960: Thesis.

MALS 5900. Independent Study (1-6 credits) — This course provides for independent study under the direction of an appropriate faculty member. Significant research grounded in interdisciplinarity required.

MALS 5950. Special Project in Liberal Studies (3 credits) — *Prerequisite: MALS 5400 or equivalent.* Written application of knowledge and understanding gained in the MALS program. A creative or performance component is acceptable.

MALS 5960. Thesis (3 credits) — *Prerequisite: MALS 5400 or equivalent.* A research project developed and documented under the supervision of a faculty committee. The research project is documented in the form of a thesis.

MALS 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

**Mathematics Course Listing (MATH)
Courses for Graduate Students Only**

MATH 5010. Patterns and Problem Solving for Elementary and Middle School Teachers (3 credits) — *Prerequisite: MATH 1420 or the equivalent.* Examination of concepts and principles in algebra and geometry through pattern recognition and problem solving (5 contact credits). (fall, even years as needed)

MATH 5015. Probability and Statistics for Elementary and Middle School Teachers (3 credits) — *Prerequisite: MATH 1530 or the equivalent.* Probability, simulation, sampling methods, elementary data analysis, statistical inference, correlation and regression, everyday use of statistics (5 contact credits). (spring, odd years as needed)

MATH 5025. Foundations and Structure of Mathematics I (3 credits) — A study of the mathematical concepts that are necessary for teachers of arithmetic and mathematics. Topics to be covered are logic and sets, number systems, curve sketching, types of geometries, and elements of probability. The metric system. (summer, as needed)

MATH 5026. Foundations and Structure of Mathematics II (3 credits) — A study of some of the mathematical concepts that are necessary for the teacher of mathematics. Topics to be covered are number theory, analytic geometry and calculus, probability and statistics. (as needed)

MATH 5040. Reasoning in Mathematics (3 credits) — *Prerequisite: MATH 1920 or the equivalent.* An introduction for teachers to mathematical arguments and reasoning. Topics treated will be drawn from logic, set theory, algebra, analysis, and geometry. (as needed)

MATH 5050. Analysis for Teachers (3 credits) — *Prerequisite: MATH 5040 or the equivalent.* A survey of elementary calculus extending to the fundamental concepts of analysis. (fall, odd years as needed)

MATH 5060. Algebra for Teachers (3 credits) — *Prerequisite: MATH 5040 or the equivalent.* A survey of algebraic structures such as rings, integral domains, fields, and groups. (spring, even years as needed)

MATH 5070. Theory of Numbers (3 credits) — Divisibility, congruences, quadratic residues, diophantine equations, and a brief treatment of binary quadratic forms. (summer)

MATH 5090. Theory of Matrices (3 credits) — *Prerequisite: MATH 2010.* Vector spaces, linear transformations, matrices, and inner product spaces. (summer)

MATH 5210. Real Analysis I (3 credits) — *Prerequisite: MATH 4227 or 5227.* The real number system, sequences, functions, Lebesgue measure, measurable functions, the Lebesgue integral, differentiation. (fall, spring, even years)

MATH 5220. Real Analysis II (3 credits) — *Prerequisites: MATH 5210.* Classical Banach spaces, metric spaces, topological spaces, Riesz Representation theory, Hilbert spaces, general measure and integration. (spring, odd years)

MATH 5310. Differential Geometry (3 credits) — *Prerequisite: MATH 5227 or permission of instructor.* Curves and frame fields in three dimensional Euclidean space, calculus on a surface, geometry of surfaces, intrinsic geometry of surfaces. (as needed)

MATH 5330. Axiomatic and Transformational Geometries (3 credits) — *Prerequisites: MATH 1920, 2010, and 2800.* Axiomatic and finite geometries, Euclidean geometry (synthetic/analytic), transformational geometries, non-Euclidean and projective geometries. (as needed)

MATH 5340. Graph Theory and its Applications (3 credits) — *Prerequisite: MATH 4347/5347 or consent of instructor.* Topics include special classes of graphs, graphical invariants, connectivity and networks, extremal graph theory and heuristic graph algorithms. Proof techniques and algorithms for solving practical computing problems using graph theory will be investigated. (fall)

MATH 5350. Topology (3 credits) — *Prerequisite: MATH 2110.* Open and closed sets, continuous functions, metric spaces, connectedness and compactness, the fundamental group. (spring, odd years)

MATH 5410. Modern Algebra I (3 credits) — *Prerequisite: MATH 4127 or 5127.* Monoids, group theory, ring theory, modules over a principal ideal domain. (fall, spring, odd years)

MATH 5420. Modern Algebra II (3 credits) — *Prerequisite: MATH 5410 or permission of instructor.* Field theory, Galois theory, algebra over a field, ring theory. (spring, even years)

MATH 5450. Advanced Topics in Graph Theory (3 credits)

MATH 5510. Complex Analysis I (3 credits) — *Prerequisite: MATH 4217 or 5217.* Complex numbers, continuity and derivatives of functions, power series, Laurent series, transcendental functions, line and contour integrals, Cauchy integral formula, Maximum Principle, applications. (fall, odd years)

MATH 5520. Complex Analysis II (3 credits) — *Prerequisite: MATH 5510.* Residues and integration, harmonic functions, conformal mapping and applications, Laplace transform, Riemann surfaces. (spring, even years)

MATH 5610. Applied Mathematics I (3 credits) — *Prerequisites: MATH 3200.* Topics in ordinary differential equations, stability, special functions, boundary value problems, and calculus of variations. (fall, even years)

MATH 5620. Applied Mathematics II (3 credits) — *Prerequisite: MATH 2120 or permission of instructor.* Partial differential equations, Fourier series and integrals, numerical techniques. (spring, odd years)

MATH 5710. Statistical Methods I (3 credits) — *Prerequisites: MATH 2110 and 2010, Elementary Statistics preferred.* Population and samples, probability distributions, estimation and testing, regression and correlation analysis, and analysis of designed experiment. (fall, even years)

MATH 5720. Statistical Methods II (3 credits) — *Prerequisite: MATH 5710 or permission of instructor.* Analysis of variance and regression on dummy variables, response surface methodology, statistical process control and acceptance sampling, reliability theory, and distribution free methods. (spring, odd years)

MATH 5810. Operations Research I (3 credits) — *Prerequisites: MATH 2110 and 2010.* Linear programming, duality theory and sensitivity analysis, special types of linear programs, and integer programming. (fall, odd years)

MATH 5820. Operations Research II (3 credits) — *Prerequisites: MATH 5810, 2110, 2010, 5047, and 5057.* Nonlinear programming, network theory, reliability theory, decision theory, probabilistic topics. (spring, even years)

MATH 5850. Numerical Analysis I (3 credits) — *Prerequisites: MATH 1120, 2250, and CSCI 1250.* Methods of numerical computation and error control, interpolation, numerical integration and differentiation. (fall, odd years)

MATH 5860. Numerical Analysis II (3 credits) — *Prerequisite: MATH 5850 or permission of instructor.* Solution of systems of linear and nonlinear equations, inversion of matrices, calculation of eigenvalues and eigenvectors, methods of fitting and smoothing data, and a selection of advanced topics. (spring, even years)

MATH 5900. Independent Study (1-6 credits) — For individual study of mathematical topics in fields of interest under the supervision of instructors. (every semester)

MATH 5960. Thesis (3 credits) — An investigation of a problem in mathematics that will lead to a thesis based upon the findings of the research. (every semester)

MATH 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

MATH 5989-99. Cooperative Education (variable credits) — students must clear arrangements for this course through the Cooperative Education Office prior to registration. Planned and supervised work assignments in business, industry, and government agencies. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees. (every semester)

Courses Co-listed in Undergraduate Catalog

MATH 5047. Mathematical Statistics I (3 credits) — *Prerequisites: Mathematics 2050, 2110, and 2010.* An introduction to the theory of probability and mathematical statistics. Topics will include discrete and continuous probability distributions and their applications, mathematical expectation and moment generating functions, functions of random variables and transformations, sampling distributions, the central limit theorem, Chi-square, t, and F distributions. (fall)

MATH 5057. Mathematical Statistics II (3 credits) — *Prerequisites: Mathematics 2110 and 4047 or 5047.* A continuation of Mathematical Statistics I. An introduction to the theory of mathematical statistics, estimation and hypothesis testing. Topics will include efficiency, consistency, sufficiency, robustness, methods of estimation, confidence intervals as well as the Neyman-Pearson lemma, power functions, likelihood ratio tests, hypothesis tests and applications. (spring)

MATH 5127. Introduction to Modern Algebra (3 credits) — *Prerequisites: Mathematics 2010 and 2800.* Introduction to the basic algebraic systems, including groups, rings, integral domains, and fields. (fall)

MATH 5157. Introduction to Modern Geometry (3 credits) — *Prerequisites: Mathematics 2250 and 2800 (or concurrent enrollment).* An introduction to Euclidean and non-Euclidean geometries, emphasizing the distinction between the axiomatic characterizations and the transformational characterizations of these geometries. Some history of the development of the discipline will also be included.

MATH 5217. Analysis I (3 credits) — *Prerequisites: Mathematics 2210 and 2800.* In a setting of the real numbers, a study of sets, functions on sets, algebra and order properties of the real numbers, sequences, sequences of functions, continuous functions, limits of functions, function approximation. (fall)

MATH 5227. Analysis II (3 credits) — *Prerequisites: Mathematics 4217 or 5217.* A study of the derivative and integral of functions of one variable, the Riemann-Stieltjes integral, series, series of functions, Fourier series. (spring)

MATH 5257. Numerical Analysis (3 credits) — *Prerequisites: Mathematics 1920, 2010, and Computer Science 1250.* Floating point arithmetic and error propagation. Numerical solution to functions of a single variable and functional approximation. Numerical differentiation and integration. Program design, coding, debugging, and execution of numerical procedures. (fall)

MATH 5267. Numerical Linear Algebra (3 credits) — *Prerequisites: Mathematics 1920, 2010, and Computer Science 1250.* Direct and iterative techniques for solving of linear equations, curve fitting, and eigenvalue-eigenvector methods. (spring)

MATH 5287. Applications of Statistics (3 credits) — *Prerequisites: Mathematics 1530 and 4047 or permission of instructor.* Topics covered include statistical methods for rates, various nonparametric procedures, regression, correlation, and analysis of variance. A course designed for the physical and social science students. (spring)

MATH 5307. Sampling and Survey Techniques (3 credits) — *Prerequisites: Mathematics 1530 or 4047 or permission of instructor.* Topics to be selected from survey designs: simple random, stratified and systematic sampling, questionnaire construction, interviewing techniques; methods of estimation and costs. (fall)

MATH 5337. Complex Variables (3 credits) — *Prerequisites: Mathematics 1920 and 2010.* Complex numbers and their algebra, complex differentiation and integration, analytic and elementary functions, residues, and power series. (spring)

MATH 5347. Introduction to Graph Theory (3 credits) — *Prerequisite: MATH 2800.* Topics include graph theory and applications, trees, planar graphs, graphical invariants, and networks.

MATH 5377. Theory of Interest (3 credits) — *Prerequisite: MATH 1910 or the equivalent.* Topics include measurement of interest—accumulated and present value factors; annuities certain; yield rates; amortization schedules and sinking funds; and bonds and related securities. (once per year)

MATH 5387. Actuarial Mathematics I (3 credits) — *Prerequisites: MATH 2050 and MATH 4377/5377 or equivalent.* This course will cover: survival distributions and life tables; life insurance; life annuities; benefit premiums; benefit reserves; and analysis of benefit reserves. (once per year)

MATH 5397. Actuarial Math II (3 credits) — *Prerequisite: MATH 4387/5387.* This is a continuation of MATH 5387. The topics include multiple life functions; multiple decrement functions; applications of multiple decrement theory; insurance models including expenses; and business and regulatory considerations. (on demand)

MATH 5417. Teaching of Secondary Mathematics (3 credits) — *Prerequisites: MATH 4127 and 4157 (or concurrent enrollment).* Introduction to methods and materials appropriate to the teaching of secondary school mathematics. Topics include mathematics problem solving, integration of computing technology into mathematics instruction, systematic study of the foundations of secondary mathematics, and a survey of ideas and techniques associated with planning, delivering, and evaluating instruction in mathematics. (fall)

MATH 5957. Topics in Mathematics (2-6 credits) — *Prerequisites: Mathematics 2010 and 2110.* Selected topics of current interest in mathematics. Offered upon sufficient demand for specified subject matter. May be repeated twice for different topics. Consultation with the instructor is recommended before enrollment. (variable)

Mass Communications Course Listing (MCOM) Courses for Graduate Students Only

MCOM 5010. Comparative Mass Media Systems (3 credits) — A comparative study of mass media systems operating in various parts of the world, highlighting their similarities and dissimilarities, through the examination of the distinctive environments in which they operate.

MCOM 5020. Media and Cultural Diversities (3 credits) — A study of the images of the cultural environment as seen through the mass media, and their impact on the cultivation of conceptions of majority and minority status.

MCOM 5030. Media and the First Amendment (3 credits) — Seminar concerned with the problems of communication freedom that arise out of special situational factors or because of problems unique to the medium of communication.

MCOM 5040. Seminar in Mass Communications (1-6 credits) — Problems, concepts, and approaches to research in selected mass communication issues. May be repeated.

MCOM 5050. Public Opinion (3 credits) — Patterns of public opinion formation including their cultural social, and economic impact. Analysis of communication content and techniques involving public opinion and persuasion.

MCOM 5060. Seminar in Media Ethics (3 credits) — The course is an exploration of the literature in mass communication which examines ethics in the context of media practices and social responsibility.

MCOM 5070. Seminar in History of Mass Communication (3 credits) — Historical research approach to mass communication with emphasis on historical writings, the philosophy of history, and methods of data collection and analysis. Emphasis on United States mass media history.

MCOM 5900. Independent Study in Mass Communications (1-3 credits) — Directed study in areas of mass communications which may involve topics such as social roles as the media, legal, ethical, or management problems, audience analysis, creative writing for, or critical evaluation of the mass media.

MCOM 5960. Thesis (3-6 credits) — *Prerequisite: Consent of instructor.* A research project developed and written under the supervision of a faculty committee.

MCOM 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

MCOM 5037. Communications Law (3 credits) — This course covers the legal aspects of the media of mass communications: constitutional law as foundation of the right to publish; freedom of information; the right to comment; privilege, property and contractual rights; defamation; invasion of privacy; criminal responsibility in defamation, obscenity, fraud, monopoly, and contempt; administrative regulation; broadcasting and advertising.

MCOM 5957. Topics in Mass Communications (2-6 credits)

Medical Education Course Listing (MDED) Courses for Graduate Students Only

MDED 5010/6010. Biometry and Biomedical Computing I (3 credits) – *Prerequisite: College Algebra.* This course is a combination of lectures and computer laboratory sessions covering statistical data analysis implemented on microcomputers. Topics discussed include descriptive and inferential statistical methods for independent and dependent samples, one- and two-factor analysis of variance multiple comparison procedures, nonparametric analysis, binomial data analysis, and categorical data analysis. Computer applications are integrated into the course. Two hours per week of lecture and two hours per week of computer laboratory.

MDED 5020/6020. Biometry and Biomedical Computing II (3 credits) – *Prerequisite: Biometry and Biomedical Computing I or permission of the instructor.* This course is a combination of lectures and computer laboratory sessions presenting a variety of advanced statistical topics, as well as research applications of the computer. Topics cover the statistical analysis of completely random, randomized complete bloc, Latin square, split-plot, and repeated measures experimental designs. Regression analysis includes the simpler linear, polynomial, and multiple regression and nonlinear regression. Computer use in physiological simulation, analogue/digital data conversion and computer communication processes is discussed. Two hours per week of lecture and two hours per week of computer laboratory.

Educational Media and Education Technology Course Listing (MEDA)

Courses for Graduate Students Only

MEDA 5000. History and Philosophy of Educational Media and Educational Technology (3 credits) — A web-based introduction to information science theory and fundamentals of educational technology and computing. The course examines the social, cultural, historical, and political ramifications related to information and to the invention, adoption, and diffusion of technology in education. The impact of technology on information and the ethical treatment of information in a technologically enhanced school environment are examined.

MEDA 5400. Integrating Technology in Teaching and Learning (3 credits) — Foundations of instructional technology appropriate to educational applications, including computers, other related media, and instructional design. Stresses knowledge, skills, and attitudes needed to implement and manage technology in educational environments. Hands-on experience is provided through the course laboratory. Students plan, implement, and evaluate educational technology for use in education.

MEDA 5635. Basic Reference Materials (3 credits) — This course provides an introduction to the basic types of reference sources, their evaluation, and use. (variable)

MEDA 5640. Multicultural Materials for Children and Young Adults (3 credits) — *Prerequisites: MEDA 5627, 5637.* An examination of cultural pluralism and prejudice as manifested in literature and media. Criteria for the evaluation of multicultural content and ways to introduce multicultural media into library programs will be explored.

MEDA 5680. Organization and Administration of Instructional Technology Programs (3 credits) — This course deals with the organization, administration, evaluation, and implementation of instructional technology programs and services for education and training. (variable)

MEDA 5700. Instructional Role of Educational Media and Educational Technology (3 credits) — Introduction to the skills of teaching as they relate to the school library media setting and to the use of educational technology. Students will learn how to design, develop, and evaluate an appropriate unit of instruction; develop and conduct a needs assessment; identify learning objectives; analyze learner characteristics; employ instructional strategies; and conduct evaluations. *Field Experience Required:* Ten (10) Hours.

MEDA 5710. School Library Media Program Development and Management (3 credits) — Management of operational aspects of school library media centers, including program development, facilities, budget, personnel, materials, and equipment. (variable)

MEDA 5715. Instructional Role of the School Library Media Specialist (3 credits) — *Prerequisites: MEDA 5000, 5400, 5700, 5950.* Exploration of the instructional role of the school library media specialist in teaching and learning. Examines relationship of learning theories, curriculum design, and information literacy standards. *Field Experience Required:* Ten (10) hours.

MEDA 5720. Organization of Library Media (3 credits) — Introduction to descriptive cataloging, classification, and subject analysis. Cataloging and processing book and non-book materials. (variable)

MEDA 5685. Online Information Services (3 credits) — This course offers an examination, analysis, and comparison of various online databases. Administrative and other related issues will be addressed. Extensive online searching will be required.

MEDA 5750. Information and Records Management (3 credits) — An introduction to the role and functions of the information manager in educational organizations with emphasis on use, retention and management of information and records.

MEDA 5800. Information Networks-Resource Sharing (3 credits) — Identification and evaluation of information networks in libraries and other educational settings. Focuses on the nature of networks including hardware and software applications. *Field experience Required* Five (5) Hours.

MEDA 5850. Organizing and Managing Content on the Internet (3 credits) — Integration, organization, and management of information content as it related to the design of Web pages. Basic ftp, server, and HTML commands and functions, as well as popular authoring programs, will be utilized to design, develop, and organize projects.

MEDA 5900. Independent Study (3 credits) — (every semester)

MEDA 5925. Practicum/Internship/Enhanced Student Teaching (5 credits) — The culminating experience for the School Library Media Concentration. Students will complete a practicum of at least 200 hours, a full-year internship, or an enhanced student teaching semester, depending upon their needs for state licensure.

MEDA 5930. Practicum with Seminar in Educational Communications and Technology (2 credits) — The culminating experience for the Educational Communications and Technology Concentration. Students will complete a practicum of at least 30 hours, working in coordination with a site supervisor and an Educational Media and Educational Technology faculty member.

MEDA 5950. Research in Educational Media and Educational Technology (3 credits) — Introduction to the research process, including problem identification, hypothesis testing, data collection, analysis and interpretation of results. Emphasis on research methods and on critical evaluation of reported research in the fields of school library media and educational technology.

Courses Co-listed in Undergraduate Catalog

MEDA 5507. Principles of Instructional Design and Production (3 credits) — This course concentrates on the systematic planning and production of instructional resources designed to meet client specifications. Computer-based media production and desktop presentations are included.

MEDA 5517. Essentials of Multimedia (3 credits) — *Prerequisite: MEDA 5507; Senior standing in Computer Science or permission of instructor.* A study of the basic elements of multimedia including text, graphic art, sound, animation, and video. This course will cover the methods of creating each of the

elements of multimedia, and how to combine them into meaningful units for maximum effect. The instruction will be interactive and project oriented. Teamwork and good design will be emphasized. (Cross-listed with CSCI 5517)

MEDA 5527. Computer-Based Authoring Systems (3 credits) — *Prerequisite:* MEDA 5517; Senior standing in Computer Science or permission of instructor. A survey of methods in computer-based authoring systems. This course will cover the design, implementation, and evaluation of computer based training modules using one or more authoring systems. Emphasis will be on the use of hypermedia and multimedia tools, analysis of instructional goals and their evaluation, and using the World Wide Web for delivery of instruction. Laboratory experiences and group projects will be integral parts of this course. (Cross-listed with CSCI 5527).

MEDA 5627. Children's Materials (3 credits) — This course deals with the analysis, evaluation, and use of library media for children. It strives to relate these media to the needs and interests of children as well as to the school curriculum. (every semester)

MEDA 5637. Young Adult Materials (3 credits) — This course deals with the analysis, evaluation, and use of library media for young adults of junior and senior high school age in relation to their needs, interests, and the school curriculum. (variable)

MEDA 5957. Topics in Media Services (2-6 credits) — *Prerequisite:* Dependent on subject matter. Selected topics of current interest in media services. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment. (variable)

Management Course Listing (MGMT) Courses for Graduate Students Only

MGMT 5010. Essentials of Management (3 credits) — This course introduces students without business backgrounds to the fields of management and organizational behavior. It focuses on essential behavioral and structural processes in organizational design and organizational change and development.

MGMT 5020. Legal and Social Environment of Business (3 credits) — A survey of legal concepts affecting business for students who have not recently taken courses in business, legal environment, or governmental regulation. Coverage includes judicial decisions, legislation, and laws on pricing, environmental protection, consumer protection, securities, equal employment opportunity, and issues of social responsibility and ethical behavior.

MGMT 5030. Quantitative Analysis for Operations Management (3 credits) — *Prerequisites:* ECON 5010 and MGMT 5010 or equivalents. A study of topics related to quantitative analysis of management decisions, including mathematical programming, inventory control, waiting line analysis, and network planning and control methods. The computer is heavily utilized as a problem-solving tool. A working knowledge of computer applications and commonly used software packages is assumed.

MGMT/ENTC 5050. Leading Continuous Improvement (3 credits) — *Prerequisites:* ENTC 5950 and graduate standing. A study of the skills and knowledge necessary for business and industry to enhance competitiveness in the global arena. Focus on customer driven quality and strategic implementation. Lecture with emphasis on teamwork, team exercises, and presentation.

MGMT/ENTC 5060. Scheduling for Project and Quality Management (3 credits) — *Prerequisite:* Instructor Approval. A detailed study in planning, organizing, and controlling projects. Computer software is used to schedule projects. Emphasis is placed on time, resources, and capital considerations for the project. Lecture, team exercises, extensive laboratory, and presentations.

MGMT/ENTC 5070. Leading Empowered Problem Solving Teams (3 credits) — *Prerequisite:* Graduate standing. A course designed to provide graduate students with practical, hands-on experience enhancing their ability to work together solving complex business and technical problems as a cohesive team. Lecture, discussion, teamwork, and presentation.

MGMT 5110. Operations Management (3 credits) — *Prerequisites:* ECON 5010 and MGMT 5030 or equivalents. Examination of decisions which affect operating and production systems in manufacturing and nonmanufacturing businesses. Topics include design and operation of

production systems, product design and process selection, physical layout, production planning and scheduling, inventory and quality control, and work methods and measurements.

MGMT 5112. Supply Chain Management (3 credits) — *Prerequisite:* Graduate Standing. A comprehensive course dealing with an approach to analyzing and managing logistics networks that improve a company's competitive position in the global marketplace. Issues dealing with resource flows throughout the supply chain will be discussed through lectures, case analysis, and simulations. Supply Chain Management is meant to provide the student with a sound, basic knowledge and understanding of the systems and techniques for planning and managing supply chains in the manufacturing and service sectors. Further, it will provide the student with an understanding of the need to make strategically sound decisions concerning these supply chains.

MGMT 5230. Management Information Systems (3 credits) — *Prerequisite:* MGMT 5000 or equivalent. An exploration of information systems in the business environment. Course content includes the basics of systems and information concepts as they relate to the organization. Significant time is devoted to learning and applying the principles of analysis, design, and implementation of an information processing system in a functional area of the firm. Ability to use the computer as a problem-solving tool is a requirement for the successful completion of this course.

MGMT 5310. Organizational Theory and Behavior (3 credits) — *Prerequisite:* MGMT 5000 or equivalent. Theories of organizational structure and behavior as a basis for studying problems as they arise in the organizational environment. Such problems as delegation, decentralization, functionalization, span of control, and types of authority are examined.

MGMT 5401. Rural Health Issues (3 credits) — *Prerequisite:* Permission of the instructor. This interdisciplinary course addresses contemporary issues relevant to the delivery of health care in rural areas, particularly those of Appalachia. The course focuses on rural communities and is taught in a problem-solving, case-project format with interdisciplinary team presentations and discussions.

MGMT/PMNU/PUBH 5505. Managing Health Care Organizations (3 credits) — *Prerequisite:* PUBH/PMNU/MGMT 5500 or permission of the instructor. This course focuses on new approaches to leading health care organizations. Students will be presented both the conceptual and technical aspects of the art and science of administering, managing, and leading health care organizations.

MGMT/PMNU/PUBH 5525. Health Services Delivery and Organization (3 credits) — *Prerequisite:* PUBH/PMNU/MGMT 5500. This course focuses on the identification and analysis of factors and interrelationships which influence the operation of health services organizations with specific attention to local health departments, hospitals, multi-institutional systems, integrated health systems, and strategic alliances. These organizations will be viewed and discussed comparatively with other types of health services agencies.

MGMT/PMNU/PUBH 5550. Human Resources Management in Health Organizations (3 credits) — *Prerequisite:* MGMT 5010 or permission of instructor. This course focuses on the skills and concepts required in managing people in health service organizations as well as on the human resource implications of changes in the external environment. This course focuses on the technical aspects of human resource management as well as the managerial skills required to manage people.

MGMT/PMNU/PUBH 5590. Strategic Planning for Health Care (3 credits) — *Prerequisites:* PMNU/MGMT/PUBH 5505 and/or permission of the major advisor. This course applies the concepts of strategic planning within the context of the health care industry. Issues associated with competing in a changing health care environment are explored with a focus on the development of solutions to problems associated with this change. The strategic management of health care delivery will be addressed from a variety of perspectives, ranging from those of the insurance industry, to public health facilities, to large health care networks, to small practices of health care providers.

MGMT/ENTC 5630. Project Management (3 credits) — *Prerequisite:* Graduate Standing. A study of contemporary project management. The course focuses on the development and/or enhancement of the ability

to successfully plan, schedule, budget, monitor, and control the execution of projects. Lecture with emphasis on teamwork, team exercises, and presentation.

MGMT/ENTC 5640. Innovative Entrepreneurship (3 credits) — *Prerequisite:* Graduate Standing Focus on new business creation based on technology innovation. Provides the innovative prudent risk taker with a practical approach for converting brilliant ideas into wealth. Fundamental methodology is applicable to all who have the desire and drive to start their own business. Lecture with emphasis on teamwork, team exercises, and presentation.

MGMT 5900. Independent Study in Management (1-3 credits) — A course designed for graduate students who, under the direction of a management faculty member, wish to engage in independent research or an intensive study of subjects not covered in other available courses. Prior departmental and college approval is needed.

MGMT 5910. Policy and Strategy Formulation (3 credits) — *Prerequisites or corequisites:* Accountancy 5100, Economics 5110 and 5240, Management 5110 and 5310, Finance 5430, and Marketing 5310. Executive level consideration of planning, operating, and evaluating the organization, its environment, and future problems and opportunities. Integrates theory and applications from functional area core courses to broaden the student's perspective of organizational interaction. Extensive use of cases. This course should be taken by students during their final academic term. MGMT 5910 is available only to students in the M.B.A. and M.Acc. programs.

MGMT 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

MGMT 5217. Service Operations Management (3 credits) — *Prerequisite:* MGMT 3100 or permission of instructor. Application of operations management principles within the service environment, and illustrating new information technologies as strategic elements of service operations. Topics include: managing services, structuring and scheduling, continuous improvements in quality and productivity. Quantitative models and case analysis will be included.

MGMT 5317. Materials Management (3 credits) — *Prerequisite:* MGMT 3010. Design of information, forecasting, planning, and control systems for allocating resources and scheduling activities. Topics include: operations information systems, forecasting, aggregate output planning, inventory control, materials requirements planning, computer-integrated manufacturing, and shop scheduling.

MGMT 5327. Decision Modeling and Simulation (3 credits) — *Prerequisites:* CSCI 1010 and MGMT 3010. Concepts and methods for building and processing models which produce information about the behavior of complex organizational systems to support management decisions. Topics include: simulation of inventory and queuing systems, flow-graphs, process generators, GPSS, management planning, and network models.

MGMT 5587. HRM Certification (3 credits) — *Prerequisite:* MGMT 4510 or the instructor's permission. A review of the content domain of human resource management topics as defined by the Society for Human Resource Management. Students will prepare for the Society of Human Resource Management's Human Resource Certification Institution Examination. Major content areas include: professionalism and ethics, management practices, selection and placement, training and development, compensation and benefits, employee and labor relations, and health, safety and security. Practice exams are a major focus.

MGMT 5617. Small Business Management (3 credits) — *Prerequisite:* MGMT 5010 or equivalent. A study of the opportunities, pitfalls, and

problems in the creation and management of small business operations. Case studies are used to illustrate the application of principles.

MGMT 5667. Environmental Law for Business (3 credits) — *Prerequisite:* MGMT 3000 or MGMT 5020 or equivalent. The course is designed to provide students with an understanding of the environmental laws and regulations that influence decision-making in the current business climate. Topics include the process by which environmental legislation is developed and promulgated, how regulations are revised, and the basic scientific and policy foundations driving specific environmental legislation. Also covered is the interaction of the judicial process in the enforcement of environmental legislation. The student also will be introduced to the technical aspects of environmental legislation most affecting business operations and the manager's role regarding compliance issues.

MGMT 5957. Topics in Management (3 credits) — *Prerequisites:* Senior or graduate standing and permission of instructor. This course gives students an opportunity to study special problems and new developments in the field of management.

Microbiology (MICR) Courses for Graduate Students Only

MICR 5000/6000. Medical Microbiology (6 credits) — *Prerequisite:* Permission of the instructor. This course is required of all students seeking a graduate degree in biomedical sciences with emphasis in microbiology. A survey of microbial forms including bacteria and viruses, bacterial physiology, genetics, immunity, and clinical parasitology. Lectures, laboratories, conferences.

MICR 5200. Microbiology Seminar (2 credits) — Presentation by students and faculty of a review of a particular topic of interest. Students must be prepared to participate in discussion. This course can be taken for credit repeatedly.

MICR 5300/6300. Immunology (2 credits) — *Prerequisite:* Permission of the instructor. An introduction to immune phenomena including recognition, production of antibody, cellular basis of antibody production, delayed hypersensitivity, and allergic phenomena. Two credits lecture.

MICR 5350/6350. Molecular Immunology (3 credits) — *Prerequisite:* Biomedical Science I-IV or permission of the instructor. This graduate course will provide a comprehensive overview of the molecular basis of the immune system. Topics covered will include the structure, function, and genetic regulation of proteins involved in immune recognition, cytokines and their receptors, and mechanisms of cellular activation. Although previous coursework in immunology is recommended, students without such experience may be enrolled with permission of instructor.

MICR 5362/6362. Molecular Virology (3 credits) — *Prerequisites:* BIOM 5010/6010, 5020/6020 and MICR 5000/6000 or permission of the instructor. Offered in alternating spring semesters; meets 6 hours/week for 1½ semester. A lecture and discussion course taught largely from the primary literature. This course covers molecular biologic aspects of the viral lifecycle as well as virus-host interactions, viral evolution, viral transmission and pathogenesis. Experimental approaches used to study these aspects of virology are particularly stressed.

MICR 5500/6500. Special Topics in Microbiology (2 credits) — *Prerequisite:* Permission of the instructor. Lecture course on areas of special interest to microbiologists; e.g., RNA viruses, comparative immunity, special groups of bacteria, etc. This course can be taken repeatedly for credit with different topics. Two lectures per week.

MICR 5900/6900. Special Problems in Microbiology (2-5 credits) — *Prerequisite:* Permission of the instructor. Research projects of limited scope to allow the student to develop certain skills or establish a specific interest in a research area. Conference and laboratory.

MICR 5960. Microbiology Thesis Research (3 credits) — Supervised research toward thesis.

MICR 5990/6990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by

student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

MICR 6100. Medical Virology (5 credits) — *Prerequisites: Permission of the instructor and Microbiology 5000.* A survey of human viruses of medical importance including both RNA and DNA viruses. Offered alternate years. Two lecture hours and six laboratory hours per week.

MICR 6200. Advanced Microbiology Seminar (2 credits) — Presentations of selected topics of interest by advanced students and faculty. Required student preparation for participation in discussion. This course may be repeated for credit.

MICR 6400. Bacterial Physiology and Metabolism (5 credits) — *Prerequisite: Permission of the instructor.* A consideration of bacterial physiology including patterns of growth, modification and modulation of growth, biochemistry of growth, and cell wall structure. Offered alternate years. Two hours lecture and six hours laboratory.

MICR 7960. Microbiology Dissertation Research (15-21 credits) — Supervised research toward thesis. Generally up to 12 credits; exceptionally up to 18 credits.

MICR 7990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for three credits of Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by the student's advisory committee in conjunction with other coursework, to receive credit for such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Grading of Readings and Research will be either satisfactory (S) or unsatisfactory (U).

Marketing Course Listing (MKTG) Courses for Graduate Students Only

MKTG 5010. Essentials of Marketing (3 credits) — A survey course of contemporary marketing theory and practice. Basic elements of marketing strategy are examined with consideration of the constraints imposed by the marketing environment and consumer behavior.

MKTG 5111. E-Marketing (3 credits) — *Prerequisite: Graduate Standing.* A comprehensive course dealing with an approach to develop a general framework to enable the design of Internet marketing programs. The course will illustrate that Internet marketing programs must be integrated with an overall marketing effort. The e-Marketing course is meant to provide the student with an understanding of how to think about and implement Internet marketing, as well as providing the student with a focus on the best of both academic theory and the practice of Internet marketing.

MKTG 5310. Marketing Management (3 credits) — *Prerequisite: MKTG 5010 or equivalent.* The role of the marketing function as it relates to the total enterprise is examined. Problems, analytical tools, and approaches to decisions concerning allocation of funds to various types of market cultivation, including development of price, promotion, product, and distribution strategies for the firm, are developed.

MKTG 5900. Independent Study in Marketing (1-3 credits) — A course designed for graduate students who, under the direction of a marketing faculty member, wish to engage in independent research or an intensive study of subjects not covered in other available courses. Prior departmental and college approval is needed.

Courses Co-listed in Undergraduate Catalog

MKTG 5217. Health Care Marketing (3 credits) — *Prerequisites: MKTG 5010 or permission of instructor.* This course is intended to give students a basic theoretical and practical knowledge of marketing as applied to the health care industry. Emphasis will be placed on the emergence of marketing information systems, and making marketing decisions in a health care context. (spring)

MKTG 5617. Marketing Research (3 credits) — *Prerequisites: MKTG 5010 and ECON 5010 or equivalents.* A study and application of the research process and techniques used in marketing research. Project planning and design, data collection and analysis, and the preparation of research reports are emphasized through lecture and student projects.

Music Course Listing (MUSC) Courses for Graduate Students Only

MUSC 5020. History and Philosophy of Music Education (3 credits) — The foundations of music education in the United States will be examined within a historical and philosophical context. Biannually.

MUSC 5030. Basic Concepts in Music Education (3 credits) — Major theories of music teaching and learning and current developments in the theoretical aspects of music education will be presented and explored. Biannually.

MUSC 5040. Techniques of Research in Music Education (3 credits) — Techniques of research design in music education will be presented along with source materials and methodology for research in music education. The student will begin work on the design of the thesis project. Biannually.

MUSC 5110. Theory Practicum (3 credits) — *Prerequisite: successful passing of graduate entrance exam in theory.* This course presents a study of the application of acquired skills in music analysis for the music educator. Biannually.

MUSC 5120. Theory Pedagogy I (3 credits) — Diatonic and chromatic practice and extended harmonic/melodic procedures will be reviewed through the study of appropriate music literature. Biannually.

MUSC 5210. Seminar in the History of Instrumental Music (3 credits) — *Prerequisite: successful passing of music history entrance exam.* This course presents a study and discussion of topics of the history of instrumental music. Specific topics to be covered will be announced prior to registration. Biannually.

MUSC 5220. Seminar in the History of Vocal Music (3 credits) — *Prerequisite: successful passing of music history entrance exam.* This course presents a study and discussion of topics in the history of vocal music (vocal solo music, choral music, opera). Specific topics to be covered will be announced prior to registration. Biannually.

MUSC 5230. Seminar in the History of Keyboard Music (3 credits) — *Prerequisite: successful passing of music history entrance exam.* This course presents a study and discussion of topics in the history of keyboard music. Specific topics to be covered will be announced prior to registration. Biannually.

MUSC 5310. Advanced Methods and Materials of Choral Art (3 credits) — This course is designed for choral directors and will focus on techniques and repertory appropriate for school choral programs. Biannually.

MUSC 5330. Advanced Choral Conducting (3 credits) — This course is designed to enhance the technique of the choral conductor. Accompanied and a cappella music of all historical periods will be studied. Biannually.

MUSC 5340. Seminar in Instrumental Music Education (3 credits) — This course is designed for band directors and will deal with topics related to instrumental music programs in the schools. Biannually.

MUSC 5350. Advanced Instrumental Conducting (3 credits) — This course is designed for band and orchestra directors and will include such topics as rehearsal techniques; critical listening; and the acoustical properties of instruments, rehearsal rooms, and concert environments. Biannually.

MUSC 5500. Graduate Applied Music (1 credit) — Private instruction and performance in the student's major instrument or voice. Primary emphasis will be on performance. May be repeated for credit. Every semester.

MUSC 5510. Secondary Applied Music (1 credit) — Private instruction in an instrument or voice for individual enrichment and the enhancement of teaching proficiency. Special attention will be devoted to pedagogical concerns and materials for teaching. May be repeated for credit. Every semester.

MUSC 5520. Graduate Ensemble (1 credit) — Participation in a university ensemble, including: Concert Band, Symphonic Wind Ensemble, Orchestra, Choir, Chorale, Opera Workshop, Jazz Ensemble. May be repeated for credit. (Note: only one credit may be counted toward the fulfillment of the 30-credit graduation minimum). fall, spring.

MUSC 5810. Suzuki Philosophy (2 credits) — Identifies and outlines the basis of the Suzuki method of teaching music. Biannually.

MUSC 5820. Suzuki Pedagogy (2 credits) — Focuses on the pedagogical techniques of the Suzuki method of teaching music. May be repeated for credit. fall, spring.

MUSC 5830. Administration of Suzuki Programs (2 credits) — Administration of the entire Suzuki program including recruitment, curriculum, and public relations. Biannually.

MUSC 5840. Teaching Practicum I (1 credit) — Teaching Practicum I should be taken concurrently with either Suzuki Pedagogy or Suzuki Philosophy as a practical experience of these courses. May be repeated for credit. fall, spring.

MUSC 5850. Teaching Practicum II (1 credit) — *Prerequisite:* MUSC 5840 or permission of the instructor. Teaching Practicum II should be taken concurrently with either Suzuki Pedagogy or Suzuki Philosophy as a practical experience of these courses. May be repeated for credit. fall, spring.

MUSC 5860. Introduction to Suzuki in the School (2 credits) — Outlines the relationships between the Suzuki method of teaching music and traditional school music programs. The student learns to integrate the Suzuki method into the school music classes. Biannually.

MUSC 5960. Thesis (3 credits) — The thesis will demonstrate research into some aspect of music education. Every semester.

MUSC 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

MUSC 5617. Teaching Beginning Piano (3 credits) — *Prerequisites:* Level II standing in piano or permission of instructor. Examination of methods and materials used in beginning-level piano instruction of adults and children.

MUSC 5627. Teaching Intermediate Piano (3 credits) — *Prerequisite:* Level II standing in piano or permission of instructor. Examination, guided instruction, and performance of literature used in intermediate-level piano instruction.

MUSC 5637. Piano Pedagogy Practicum (1 credits) — *Prerequisite:* Level II standing in piano or permission of instructor. Supervised teaching experience with the beginning piano student. Students will plan, implement, and evaluate instruction. Meets one clock hour per week.

MUSC 5957. Special Topics in Music (1-3 credits) — *Prerequisite:* Contract must be on file prior to registration. Contract available in Mathes 100. Individual instruction and research in topics pertaining to music. Every semester.

Physical Education, Exercise, and Sport Sciences Course Listing (PEXS)

Courses for Graduates Students Only

PEXS 5647. Physical Dimensions of Aging (3 credits) — This course will provide an understanding of the physiological effects of aging and how exercise may or may not prevent a decline in function. Students should have a basic understanding of cardiovascular, muscle, respiratory, and exercise physiology before taking this class.

PEXS 5032. Motor Development Assessment and Programming (3 credits) — *Prerequisite:* PEXS 3032 or equivalent. This course will provide instruction in the hereditary and environmental determinants of motor development; motor behavior of infancy through adolescence; characteristic changes in size, body build, fitness, and motor performance; techniques of appraising motor development; and developmentally appropriate programming.

PEXS 5040. Motor Control and Learning (3 credits) — The study of human movement with emphasis on the psychological factors which affect skill acquisition and performance.

PEXS 5110. Curriculum Development (3 credits) — This course is designed to further the understanding of physical education instructors in the area of program planning.

PEXS 5430. Administration of Physical Education and Athletics (3 credits) — A study of representative policies and procedures for the organization and administration of physical education and athletics in the public schools. The course is divided into two credit lecture and one credit internship.

PEXS 5440. Pedagogy (3 credits) — This course is designed to teach students how to understand, recognize, analyze, and demonstrate the range of teaching skills employed by a successful physical education specialist. Emphasis is placed on understanding the theoretical implications of different teaching skills and the contexts in which they are effective.

PEXS 5450. Advanced Adapted Physical Education, Sport and Leisure Activity (3 credits) — This course will provide instruction in the characteristics and educational considerations for specific disabilities to ensure appropriate evaluation, placement, and instruction for physical education, sport, and leisure activity programs for individuals with disabilities.

PEXS 5460. Inclusion in Physical Education, Sport and Leisure Activity (3 credits) — *Prerequisite:* PEXS 4250 or permission of instructor. This course will provide instruction in the approaches, methods, and materials needed for the mainstreaming/inclusion of children, adolescents, and adults with and without disabilities in physical education, sport and leisure activity settings. Research, legislation, and litigation, related to the inclusion of persons with disabilities will be emphasized.

PEXS 5470. Systematic Observation & Analysis of Instruction. (3 credits) — *Prerequisite:* PEXS 5440. This course will provide an overview of techniques and instruments used to observe and analyze instruction in physical education. Practical experience with current observation instruments, and the techniques and methods to develop and implement a personalized observation instrument to improve teaching, will be emphasized.

PEXS 5520. Instrumentation in Exercise Physiology (3 credits) — This course is designed to provide students with an opportunity to become acquainted with the operation of laboratory equipment used to measure physiological and anthropometrical adaptations of the human body to exercise and training.

PEXS 5540. Exercise Test & Prescription (3 credits) — *Prerequisite:* PEXS 4620 or equivalent. The purpose of this course is to prepare the student in graded exercise testing, recognition of ECG arrhythmias, and exercise prescription for the apparently healthy as well as the diseased adult population. American College of Sports Medicine guidelines are followed, with preparation for ACSM certification.

PEXS 5610. Muscle Metabolism and Hormonal Control (3 credits) — *Prerequisite:* PEXS 4620 or equivalent. This course provides instruction in the underlying mechanisms behind the acute physiological and biochemical responses to exercise as it relates to biochemical pathways, muscle physiology/neuromuscular control, endocrinology, and human performance.

PEXS 5620. Cardiovascular and Respiratory Physiology (3 credits) — *Prerequisites:* PEXS 4620 or equivalent. This course provides instruction in the underlying mechanisms behind the acute physiological and biochemical responses to exercise as it relates to the cardiovascular system, respiration, environmental physiology for the trained, detrained, and master athlete.

PEXS 5650. Advanced Concepts in Wellness Promotion (3 credits) — This course is designed to provide an in-depth exploration of wellness theories and practices as they relate to the practice of wellness promotion. Emphasis will be placed on discussing and comparing the differences in primary, secondary, and tertiary health strategies in the prevention and treatment of disease.

PEXS 5655. Sports Nutrition and Ergogenic Aids (3 credits) — *Prerequisite:* FACS 2420 or equivalent. This course will present a comprehensive in-depth treatment of sports nutrition. Legal and illegal ergogenic aids commonly used in sports will be covered in detail as they relate to performance enhancement and an athlete's long-term safety. Students will participate in several research based learning projects that will enable them to understand

how to analyze and develop nutritionally sound diets for endurance, speed, and strength related activities. In addition, special nutritional needs such as gaining muscle mass or lowering body fat content will be discussed.

PEXS 5656. Sports Conditioning and Training (3 credits) — *Prerequisite: PEXS 4620 or equivalent.* Students will apply the theory and application of biomechanics and exercise physiology to the development of a strength and conditioning program for a given sport or athlete.

PEXS 5670. Critical Analysis of Research in Exercise Science (3 credits) — This course is designed to teach students how to analyze and interpret existing exercise science research to better understand the research process: design, methodology, and statistical analysis. Emphasis will be placed on analyzing and comparing the differences research methods as they relate to answering various exercise science questions.

PEXS 5800. Internship in Fitness/Exercise Physiology (3 credits) — *Prerequisite: Completed 30 credits in major.* This course is designed to provide students with an actual work-site experience in the Fitness Leadership Concentration or a laboratory-oriented experience for students in the Exercise Sciences Physiology Concentration.

PEXS 5911. Special Studies (1-3 credits) — This course is designed to provide some flexibility in the graduate program by giving students an opportunity to study special problems which are of particular significance to them. Workshops are offered as special studies.

PEXS 5912. Special Studies (1-3 credits) — This course is designed to provide some flexibility in the graduate program by giving students an opportunity to study special problems which are of particular significance to them. Workshops are offered as special studies.

PEXS 5960. Thesis (3 credits)

PEXS 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

PEXS 5467. Nutrition and Exercise Related Aspects to Metabolic Diseases (3 credits) — This course is designed to provide an in-depth investigation of the physiologically and metabolically related aspects of exercise and nutrition in the prevention and treatment of metabolic diseases. Students will also learn the scientific basis of how specific health intervention strategies affect these diseases mechanistically from a pathological perspective. (annually)

PEXS 5957. Topics (2-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in physical education. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment. (annually)

PEXS 5977. Exercise Management for Persons with Chronic Diseases and Disabilities (3 credits) — This course will examine chronic diseases and disabilities that occur in many individuals. It is oriented toward understanding the disease, the effects exercise may have on the diseases, and modifications to general exercise programs. (annually)

Pharmacology Course Listing (PHAR) Courses for Graduate Students Only

PHAR 5000/6000. Medical Pharmacology (7 credits) — *Prerequisites: Biomedical Science I-IV or permission of the instructor; Medical Physiology 5000, and permission of the instructor.* This general survey course, designed for medical students, will be used as an introductory course for graduate students. Graduate students may be requested to perform additional assignments at the discretion of the instructors. A limited number of special assignments may be

made if this general course requires amplification for the appropriate foundation for graduate study. (spring)

PHAR 5100/6100. General Principles of Pharmacology (2 credits) — *Prerequisite: Permission of the instructor.* The objective of this course is to introduce students to the study of experimental pharmacology. Lectures, laboratory experiences, and discussion are used to examine experimental design, basic pharmacokinetics, bioassay, and drug-receptor interactions. (summer, fall)

PHAR 5200/6200. Pharmacology Seminar (2 credit) — Presentation by students and faculty of literatures concerned with a particular topic of interest. Students must be prepared to participate in discussion. This course can be taken repeatedly for credit. (spring)

PHAR 5210/6210. Laboratory Rotation - Pharmacology (1-3 credits) — An entering student will be required to take this rotation course during the first semester. The student is to make arrangements to spend about four weeks in at least three faculty members' laboratory during the semester rotation. The credit hour assigned will be based upon approximately 3-4 hours/week/credit for the semester. The purpose of the rotation is to expose the student and selected faculty to a mutual learning experience. The goal is to expose the student to what the particular laboratory selected is actively pursuing in research, and to become introduced into some aspect of the discipline that can enhance the selection of a research area and sponsor. The faculty will become aware of the talents, level of interest, and previous training the student has brought to the program. (every semester)

PHAR 5220/6220. Pharmacology and Physiology Journal Club (1 credit) — Presentation by students and faculty of literatures concerned with a particular topic of interest. Students must be prepared to participate in discussion. This course can be taken repeatedly for credit. (fall)

PHAR 5500/6500. Special Topics in Pharmacology (1-4 credits) — Courses will be offered in special and more restricted areas of pharmacology to meet the needs of particular students. Hours by arrangement for variable credit. (every semester)

PHAR 5900/6900. Special Problems in Pharmacology (1-4 credits) — Research projects of limited scope to allow the student to develop certain skills or establish a specific research area. Conference and laboratory. (every semester)

PHAR 5960. Pharmacology Thesis Research (3 credits) — Supervised research toward thesis. (every semester)

PHAR 5990/7990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

PHAR 6320. Autonomic Pharmacology (3 credits) — *Prerequisite: Permission of the instructor.* This course is directed towards developing an understanding of autonomic nervous system function. Topics to be included are principles of synaptic transmission, peripheral neurotransmitters, second messenger systems, and autonomic nervous system modulation of physiological and metabolic functions. Offered alternate years. Three credits lecture per week. (fall)

PHAR 6340. Cardiovascular Pharmacology (4 credits) — *Prerequisite: Permission of the instructor.* A study of the mechanisms of the action of drugs in modifying physiological and pathological function of the heart and vascular systems. Topics will include drugs used in modifying physiological and pathological function of the heart and vascular systems and drugs used in treating cardiac arrhythmia, heart failure, and atherosclerotic disease. Offered alternate years. Four hour discussion sessions per week. (fall)

PHAR 6360. Neuropharmacology (3 credits) — *Prerequisite: Permission of the instructor.* A study of chemical transmitters in the central nervous system with special emphasis on drug modification of transmitter action and neuronal function. Topics presented include distribution and function of

putative neural transmitters, drug modification of physiological and psychological function, and drug mechanisms in the treatment of affective disorders. Offered alternate years. Three hours of lecture or demonstration per week. (spring)

PHAR 6400. Toxicology (3 credits) — *Prerequisite: Permission of the instructor.* An introduction to toxicology including consideration of heavy metals, organic solvents, alkaloids, glycosides, polypeptides, and techniques used in conducting toxicological research. Special emphasis will be placed on the toxicology of heavy metals and insecticides. The application of gas chromatographic mass spectroscopy as an analytical tool for toxicology will be considered. Offered alternate years. Two hours lecture and demonstration per week. (every semester)

PHAR 7960. Pharmacology Dissertation Research (15-21 credits) — Supervised research toward thesis. Generally up to 12 credits; exceptionally up to 16 credits. (every semester)

Courses Co-listed in Undergraduate Catalog

PHAR 5957. Topics in Pharmacology (2-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in pharmacology. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Philosophy and Humanities Course Listings (PHIL) Courses for Graduate Students Only

PHIL 5900. Independent Study in Philosophy — A plan for independent study without regular class sessions. A student with sufficient background may select a special project under the direction of a member of the department and with the approval of the chair.

Courses Co-Listed in Undergraduate Catalog

PHIL 5017. Ethical Theory (3 credits) — History of ethics from Ancient Greece to the present. Special emphasis on the theories of Plato, Aristotle, Kant, and Mill.

PHIL 5027. Contemporary Philosophy (4 credits) — A survey of developments in European and American philosophy from the mid-19th century to the present.

PHIL 5047. Philosophy of Religion (3 credits) — An examination of classical and contemporary discussions of philosophical issues about religion including the nature of God, of man, and of religious truth; and contemporary discussions of religion and atheism.

PHIL 5057. Philosophy of Art (3 credits) — An introduction to philosophical issues that arise in our attempts to understand the creation, appreciation, and criticism of the various literary, plastic, and performing arts.

PHIL 5067. Philosophy in Literature (3 credits) — An examination of philosophical issues as they appear in the world's literature including poetry, fiction, and essays.

PHIL 5107. Classical Political Philosophy (3 credits) — An examination of the classical tradition in political thought with emphasis on reading the works of Plato and Aristotle as well as those of later representatives of this tradition.

PHIL 5127. Modern Political Philosophy (3 credits) — An examination of modern political thought with emphasis on the Social Contract theories of Hobbes, Locke, and Rousseau, and the utilitarianism of Bentham, Mill, and others.

PHIL 5137. Marxism (3 credits) — A study of the basic ideas of Marx and his contemporary interpreters in Eastern Europe, Asia, and the Third World.

PHIL 5917. Philosophy of the Biological and Biomedical Sciences (3 credits) — Topics of philosophical and theoretical interest generated by the biological and biomedical sciences. Includes consideration of the broader social and cultural implications of biological and biomedical theory.

PHIL 5957. Topics in... (2-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in philosophy and humanities.

Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Physics Course Listing (PHYS) Courses for Graduate Students Only

PHYS 5900. Special Problems in Physics (1-3 credits) — *Prerequisite: Approval of a research advisor.* Individual research on a problem in which the graduate student has a special interest. Hours arranged. May be repeated in successive semesters.

PHYS 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

PHYS 5007. Computational Physics (3 credits) — *Prerequisites: PHYS 2110-2120 or MATH 3200.* This course is designed to cover techniques used in modeling physical systems numerically. Topics include data fitting; error analysis; numerical differentiation and integration; techniques to solve systems of linear equations, ODEs, and PDEs; oscillatory motion and Fourier analysis; and random systems. Prior computer programming experience is desirable but not mandatory.

PHYS 5117. Kinetic and Statistical Physics (4 credits) — *Prerequisite: Senior standing or permission of instructor.* Kinetic theory of an ideal gas, equations of state, distribution of molecular velocities, principles of statistical mechanics, transport phenomena, applications of Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Three one-hour lectures and one two-hour recitation session each week.

PHYS 5617. Quantum Physics (4 credits) — *Prerequisite: Senior standing or permission of the instructor.* An introduction to quantum theory and nonrelativistic quantum mechanics. Historical development of ideas which led to present-day theories. Schrodinger's Equation and applications, approximation methods, matrix methods, and related topics. Three one-hour lectures and one two-hour recitation session each week.

PHYS 5717. Electromagnetic Theory (4 credits) — *Prerequisite: PHYS 3710.* Principles of electromagnetic theory, Maxwell's equations, selected applications, and related topics. Three one-hour lectures and one two-hour recitation session each week.

Physical Therapy Course Listing (PHYT) Courses for Graduate Students Only

NOTE: Students must be accepted into the Physical Therapy program in order to register for any of the following courses:

PHYT 5553. Current Trends in Physical Therapy (1 credit) — Students will explore special needs within the population or health care community where expanded physical therapy services could have a positive impact on the well-being or function of individuals. The topic(s) will vary from year to year and be dependent on special needs of the population identified by the departmental faculty through their service, education, and research efforts.

PHYT 5900. Directed Studies (1-3 credits) Students will develop investigative research and writing skills under the individual guidance of the physical therapy faculty. This overall objective will be accomplished by providing students, working individually or as groups, the opportunity, in conjunction with a faculty advisor, to research and discuss, in writing and/or orally, a topic of current interest related to the field of physical therapy. The

opportunity for independent directed study is scheduled twice within the overall professional curriculum for a minimum of 2 and a maximum of 6 credit hours.

PHYT 6101. Functional Human Anatomy (6 credits) The study of normal human anatomy as it relates to function with special emphasis on structures of the extremities. Includes the study of embryological development histology. Human cadaver dissection is the primary laboratory activity.

PHYT 6102. Pathophysiology (4 credits) This course includes a survey of the clinical signs, symptoms, and etiologies of the major diseases of all systems of the human body. Principles of diseases affecting the different organ systems with clinical relationships in physical therapy are studied.

PHYT 6103. Biomechanics (3 credits) This course is an introduction to the study of biomechanics as it relates to the clinical practice of physical therapy. Emphasis will be on mathematical clinical problem solving as it relates to forces and motions acting within or on the human body statically or dynamically; biomechanics of solids and musculoskeletal tissues; biomechanics of joint complexes of the human body; and, an introduction to the application of biomechanical scientific principles in the evaluation of the musculoskeletal system.

PHYT 6111. PT Basic Skills I (2 credits) This is an introductory course in evaluation techniques. Topics include, but are not limited to: evaluation of posture and gross motion of the extremities and trunk, manual muscle testing, and goniometry.

PHYT 6151. Professional Issues I (1 credit) This is the first in a series of two courses that will introduce students to the various ethical, legal, psychosocial, and management issues involved in being a physical therapist. Emphasis will be placed on various issues that affect one's own value system and how one relates to other health care professionals, patients, patients' families, and the changing health care system.

PHYT 6212. PT Basic Skills II (3 credits) The students will have the opportunity to learn the theory and psychomotor skills for applying the physical modalities commonly employed in physical therapy. The physical therapy related modalities within the following areas will be covered: electromagnetic radiation (UV, IR, LASER), Mechanical (US, distraction, compression), Thermal (conductive and convective heating, cryotherapy, diathermy, hydrotherapy).

PHYT 6213. PT Basic Skills III (4 credits) Documentation and basic patient care skills are presented; skills include transfer techniques, wheelchair management, teaching the use of assistive gait devices, and how to monitor vital signs. In addition, a general overview of exercise prescription, exercise techniques, and clinical outcome measurements associated with therapeutic exercise will be presented. Students will study and practice general rules of good body mechanics, patient handling, and safety for patients and therapists. An overview of some methods for kinematic and kinetic gait analyses will be presented. The terminology used to describe normal gait and the variables assessed in a gait analysis will provide the basis for observational gait analysis. An introduction to pathological gait patterns as well as normal changes that occur in ambulation over the life span will also be presented.

PHYT 6221. Musculoskeletal I: Extremities (4 credits) This course is an introduction to physical therapy evaluation and treatment management of common musculoskeletal disorders of the extremities. It will also introduce common orthopaedic clinical tests, fundamentals of musculoskeletal radiology, fracture management of the extremities, joint replacements, manual therapy of the extremity joints, and rehabilitation associated with common orthopaedic surgical repairs and musculoskeletal disorders of the extremities.

PHYT 6261. Introduction to the Research Process (1 credit) This course provides students with an introduction to the foundations and concepts involved in scientific investigation, and the composition and critical analysis of scientific writing and presentation.

PHYT 6271. Clinical Practicum I (2 credits) — *Prerequisite: Successful completion of previous coursework in the PHYT curriculum.* This is the first in a series of courses designed to allow students to implement and refine the clinical skills learned in the classroom in a patient care setting. Each student will be assigned to a clinical setting and work under the direct supervision of a licensed physical therapist. By completing all of the clinical practicum objectives, the student will meet each of the PHYT Program Goals.

PHYT 6304. Neuroscience (6 credits) — This course is designed to transmit the fundamental facts and concepts underlying current knowledge of the nervous system as this knowledge applies to general clinical training in medicine and physical therapy and on the principle that the best understanding of the nervous system is obtained when the morphological, physiological, and behavioral aspects of the neurosciences are presented conjointly. Clinical examples and correlations are used to provide a context for perceiving and recognizing normal neural structure/function and to illustrate how knowledge of the basic neurobiological principles underlie an understanding of neural and behavioral dysfunction.

PHYT 6314. PT Basic Skills IV (2 credits) The course includes an introduction to the evaluation, assessment, and treatment of soft tissues affecting dysfunction or pain. Specific tissues include muscle, epithelial, nervous, and connective tissue and topics include massage, myofascial techniques, stretching, and contract-relax.

PHYT 6315. Electrotherapeutics (3 credits) Students will have the opportunity to learn the theory and psychomotor skills for applying the electrotherapeutic modalities commonly employed in physical therapy. The course will focus on the use of electrical force in the evaluation and treatment of patients in rehabilitation medicine.

PHYT 6322. Musculoskeletal II: Lower quarter (thoracic, lumbar, pelvis/sacral spine, and lower extremities) (4 credits) — This course is an introduction to physical therapy evaluation and treatment management of common neuromusculoskeletal disorders of the thoracic, lumbar, pelvis/sacral spine, and the lower extremities (hip, knee, ankle, and foot). It also includes an introduction to differential diagnosis for neuromusculoskeletal disorders, for common orthopaedic clinical tests, fracture management, manual therapy, imaging and radiological evaluation of the upper quarter and rehabilitation of common surgical repairs of the lower quarter.

PHYT 6331. Neurotherapeutic Principles I (4 credits) This course includes an application of basic anatomy and physiology of the human nervous system to evaluation and treatment techniques for the neurologically involved patient. Emphasis is placed on critical analysis of the neurological assessment procedures and principles of therapeutic management as they relate to neurophysiological and developmental learning principles. The course is designed to present to the student the etiology, incidence, signs and symptoms, motor impairment, physical disabilities, prognosis, and medical and surgical management of common disorders such as the following: stroke, spinal cord injury, traumatic brain injury, Parkinson's disease, demyelinating diseases, neuropathies and injuries of peripheral nerves, neuromuscular diseases, inherited disorders, and infections of the nervous system. This course will provide the student with the didactic and clinical applications of evaluative measures, therapeutic interventions, and treatment rationale for these select neurological conditions.

PHYT 6405. Pharmacology I for PT (2 credits) Students are introduced to the most commonly used pharmacotherapeutic agents for patients receiving physical therapy. The role of these agents is discussed in relation to disease prevention, amelioration, restoration/cure, maintenance, and how they affect the patient's response to physical therapy procedures.

PHYT 6416. Wound and Burn Care (2 credits) This is an introductory course for the prevention, evaluation, and management of non-thermal and thermal wounds of the integument and associated soft tissues as commonly seen in the practice of physical therapy.

PHYT 6432. Neurotherapeutics II-Pediatrics (3 credits) — Introduction to the physical therapy management of children with diseases and dysfunction of the neuromusculoskeletal system. Students will learn through lecture and laboratory experiences how to implement specific evaluation and treatment techniques for these conditions including, but not limited to, the management of cerebral palsy, spina bifida, muscular dystrophy, common pediatric orthopedic problems and mental retardation. Normal and abnormal growth and development will also be presented. Students will also be exposed to the various federal regulations that impact the delivery of physical therapy services to the pediatric population.

PHYT 6433. Neurotherapeutics III-Geriatrics (2 credits) This course is designed to provide students the opportunity to build upon and

integrate previous coursework in physical therapy evaluation and treatment planning of the geriatric client. Emphasis is placed on the musculoskeletal, neurologic, cardiopulmonary, and psychosocial factors involved in the normal aging process. Students will then modify, practice and demonstrate various treatment approaches to select medical problems frequently encountered in the geriatric population.

PHYT 6452. Clinical Correlates Seminar I (1 credit) This is the first in a series of three courses in which students will begin to integrate concepts drawn from previous coursework with developing clinical knowledge and practical experience. Individual case studies will be presented to the class and faculty for discussion to facilitate transition to professional practice. Emphasis will be placed on application to a wide variety of health care problems as selected by the students.

PHYT 6462. Scientific Inquiry for Physical Therapists (1 credit) The course provides students with an introduction for critical examination of research sampling, designs, and data analysis. Elements of experimental and nonexperimental designs will be studied. Statistical measures for variability, and common parametric and nonparametric analysis of data are also examined.

PHYT 6472. Clinical Practicum II (2 credits) This is the second in a series of courses designed to allow students to implement and refine the clinical skills learned in the classroom in a patient care setting. Each student will be assigned to a clinical setting and work under the direct supervision of a licensed physical therapist.

PHYT 6523. Prosthetics and Orthotics (3 credits) This course emphasizes the physical therapy management of patients with amputations. Students learn how to implement specific evaluation and treatment techniques for this condition including proper function and use of prostheses, exercise programs used for training, and gait patterns. In addition, this course will introduce basic principles of orthotics for the spine and extremities.

PHYT 6541. Cardiopulmonary Rehabilitation (2 credits) Lecture and laboratory course which emphasizes the physical therapy management of patients with disease and dysfunction of the cardiac and pulmonary systems. Students learn how to implement specific evaluation and treatment techniques for cardiopulmonary conditions; including low level stress testing and EKG interpretation. The course includes a review of the anatomy and physiology of the cardiovascular and respiratory systems as the foundation for understanding the pathophysiology of the conditions studied.

PHYT 6553. Professional Issues II (2 credits) This is the second in a series of two courses that will introduce students to the various ethical, legal, psychosocial, and management issues involved in being a physical therapist. Emphasis will be placed on various issues that affect one's own value system and how one relates to other health care professionals, patients, patients' families, and the changing health care system.

PHYT 6554. Clinical Correlates II (1 credit) This is the second in a series of three courses in which students will begin to integrate concepts drawn from previous coursework with developing clinical knowledge and practical experience. Individual case studies will be presented to the class and faculty for discussion to facilitate transition to professional practice. Emphasis will be placed on application to a wide variety of health care problems as selected by the students.

PHYT 6573. Clinical Practicum III (2 credit) This is the third in a series of courses designed to allow students to implement and refine the clinical skills learned in the classroom in a patient care setting. Each student will be assigned to a clinical setting and work under the direct supervision of a licensed physical therapist.

PHYT 6663. Human Research for Physical Therapy (1 credit) Students are introduced to the procedures involved in human research. These include the educational requirements, development and submission of all documentation required to conduct research with humans. Students will examine the components and mechanism of writing a case report.

PHYT 6674. Internship I (12 credits) This course will allow the student to develop and refine the clinical skills necessary to evaluate and treat patients/clients commonly seen by a physical therapist. Students will be assigned to a variety of clinical settings and work under the direct supervision of a licensed physical therapist.

PHYT 6681. Administration & Management in PT (2 credits) This is an introductory course to the principles of administration/management

as they relate to the practice/business of physical therapy. Topics will include, but not be limited to: physical therapy in the changing health care system and changing organizational structures, fiscal management, human resources management, reimbursement for service issues, information management technologies, operations management, strategic planning, services and facilities planning, risk management, marketing and public relations, consultation issues, contracts, continuing quality improvement, time management, and management communications relative to physical therapy.

PHYT 7706. Pharmacology II for Physical Therapy (1 credit) — *Prerequisite:* *PHYT 5405 or 4405; or permission of instructor.* Students are introduced to additional pharmaceutical agents in patients receiving physical therapy. The pharmacokinetics, pharmacodynamics, and toxic effects of these pharmaceuticals and their effect on patient's response to physical therapy assessment or interventions are discussed.

PHYT 7717. Current Trends in Physical Therapy (1 credit) Students will explore special needs within the population or health care community where expanded physical therapy services could have a positive impact on the well-being or function of individuals. The topic(s) will vary from year to year and be dependent on special needs of the population identified by the departmental faculty through their service, education, and research efforts.

PHYT 7764. Case Study in Physical Therapy (1 credit) — *Prerequisite:* *PHYT 6663, Human Research for Physical Therapy.* Students will continue to develop investigative and writing skills under the individual guidance of the physical therapy departmental faculty by preparing a written case study based on a physical therapy clinical situation. This course will build on the introduction to case studies presented in PHYT 6663, Human Research.

PHYT 7775. Internship II (10 credits) This course will allow the student to further develop and refine clinical skills necessary to evaluate and treat patients/clients commonly seen by a physical therapist. Students will be assigned to a variety of clinical settings and work under the direct supervision of a licensed physical therapist.

PHYT 7807. Imaging Studies for Physical Therapy (2 credits) This course is an in-depth overview of imaging studies introduced earlier in the physical therapy curriculum. The student will study various imaging technologies such as computerized tomography (CT) scans, medical resonance imaging (MRI), myelograms, and nuclear medicine with a emphasis on plain film radiography. These studies will be related to the cardiovascular, pulmonary, gastrointestinal, and reproductive systems with an emphasis on the neuromusculoskeletal system. In turn, these studies will be related to the role of the physical therapist on the health care team and the making of a physical therapy diagnosis. The student will also discuss the advantages and limitations of requesting and using imaging as part of the physical therapy screening and evaluation process.

PHYT 7855. Lifespan Development for Physical Therapy (3 credits) This course involves a comprehensive examination of physical, emotional, cognitive, and socio-cultural aspects of development from the prenatal period throughout the lifespan. Emphasis will be on the 'total person' as students examine the interdependency of these areas during development. Theoretical, methodological, and empirical issues will be emphasized as students explore stages and transitions in sensory-motor, cognitive, emotional, and social development throughout infancy, early childhood, middle childhood, adolescence, young adulthood, middle adulthood, late adulthood, and the end of life.

PHYT 7856. Health and Wellness Strategies for Physical Therapy (3 credits) This course will assist the physical therapist or student in expanding his/her role in developing strategies in prevention and the promotion of health, wellness, and physical fitness as part of his/her therapy clinical practice.

PHYT 7857. Differential Diagnosis for Physical Therapy (2 credits) This course is designed to guide students through a systematic and comprehensive clinical decision-making process by assisting them in gathering the historical, physical, psychosocial, and laboratory information necessary to make a differential diagnosis. As an across-the-lifespan illness-focused clinical decision-making course, students are expected to identify signs and symptoms of systemic disease that may be masquerading as musculoskeletal dysfunction. Students will learn to recognize reported and unreported symptoms or medical

conditions that can have a serious impact on the health of an individual and that require immediate referral. Emphasis is on critical thinking in the clinical setting and the identification of 'red flags' that highlight critical information needed to safely manage the client.

PHYT 7882. Teaching and Learning for Physical Therapy (1 credit) This course is designed to acquaint students with educational and evaluation methods as they are used in physical therapy settings.

PHYT 7883. Management and Leadership in Physical Therapy (2 credits) This course will build on the principles learned in Administration and Management. Students will investigate how health care policy impacts the practice of physical therapy. Students will also study leadership and management principles that can be used to improve patient outcomes and employee satisfaction.

PHYT 7976. Internship III (6-15 credits) This course will allow the student to develop and refine skills in a specialty area. The student will be assigned to a clinical, administrative, research, or teaching setting that specializes in the student's area of interest. The student will be supervised by a professional with documented credentials in the particular specialty area. If the student is in a clinical setting, supervision by a licensed physical therapist will be required. Total maximal contact time: 600 hours.

Physiology Course Listing (PHSI) Courses for Graduate Students Only

PHSI 5000/6000. General Physiology (9 credits) — *Prerequisite: Permission of the instructor.* This is a course of study for future physicians and graduate students in the biomedical sciences which emphasizes the compensatory aspects of regulatory mechanisms in living systems. Lectures and conferences are essential ingredients. (spring)

PHSI 5020/6020. Experimental Basis of Physiology (2 credits) — *Prerequisite: Permission of the instructor.* This course presents classical and current experimental approaches to a number of physiological questions and discusses in depth specific topics and issues in each of the major areas of physiology from the experimental point of view. (every semester)

PHSI 5200/6200. Physiology Seminar (2 credits) — Included are presentations by students and faculty of a review of a topic of interest. Students must be prepared to participate in discussion. This course can be taken repeatedly for credit. Two hours lecture per week (spring, summer)

PHSI 5300/6300. Intracellular Signaling (3 credits) — *Prerequisite: General Physiology 5000 or consent of the instructor.* This course covers selected topics of current interest in the problems of signal processing by mammalian cells. Topics will include CAMP, protein kinase C, G proteins, calcium, protooncogenes, and channel activation with respect to various cell functions. Emphasis will be placed on review of the current literature and methodology. Objectives will be to achieve detailed understanding of integrative function and signal processing at the cellular level. Offered alternate years. (alternate years)

PHSI 5350/6350. Systems Physiology (3 credits) — *Prerequisite: General Physiology 5000 or consent of the instructor.* This course examines selected aspects of cardiovascular function. Topics presented include multiple aspects of blood pressure control, microvascular physiology, and theoretical considerations related to hypertensive disease and microcirculatory disorders. Emphasis will be placed upon examination of research literature. (alternate years)

PHSI 5400/6400. Neuroregulation (3 credits) — *Prerequisite: General Physiology 5000 or consent of the instructor.* This course examines the mechanisms by which cells communicate and how this communication is integrated to regulate specific functions. Topics presented include aspects of signaling in the nervous and endocrine systems, interactions between these systems, regulation of specific functions by the nervous and endocrine systems, and the research techniques used to study questions in these areas. (alternate years)

PHSI 5450. Membrane and Transport Physiology (3 credits) — *Prerequisite: General Physiology 5000 or consent of the instructor.* This course presents the fundamentals and current understanding of biological transport of solutes and fluid across cell membranes. Membrane physiology will be presented as it relates to biologic transport. Subject matter will be based in part on current literature. Student participation will be required. (alternate years)

PHSI 5500. Special Topics: Introduction to Research (2-5 credits) — This course is intended for beginning graduate students and will be conducted in the laboratory of a potential sponsor of the student's research. It will include training in the various technical procedures used in that laboratory and may serve to introduce the student to research methodology in a field of physiology. (variable) Hours by arrangement for variable credit.

PHSI 5600/6600. Readings and Research Physiology (2-5 credits) — This course involves specific research studies to be conducted in a sponsor's laboratory in the student's field of interest. Specific areas of inquiry to be arranged by the student in cooperation with sponsor. Hours by arrangement for variable credit. May be repeated. (variable)

PHSI 5900/6900. Special Problems (2-3 credits) — *Prerequisite: Medical Physiology 5500.* This course will provide the student with a critical appraisal of current and classical experimental approaches to the various fields of physiologic interest. Students will be introduced to review literature in the field and will be stimulated to a critical examination of the investigative literature. The course will be conducted as a series of seminars with presentations by faculty, students, and selected investigators. In some areas of inquiry, laboratory exercises will be provided. The fields of interest will cycle over a period of about three years. The current subject matter will be announced at the beginning of each semester. Areas of interest will include: cell biology; cardiovascular, endocrine, pulmonary, and renal physiology; microcirculation and exercise physiology; neurophysiology. This course may be taken repeatedly for credit. Three hours lecture and demonstration per week. (variable)

PHSI 5960. Thesis Research (3 credits) — Supervised research toward thesis is the content of this course. (every semester)

PHSI 5990/7990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

PHSI 6450. Membrane and Transport Physiology (3 credits) — *Prerequisite: General Physiology 6000 or consent of the instructor.* This course presents the fundamentals and current understanding of biological transport of solutes and fluid across cell membranes. Membrane physiology will be presented as it relates to biologic transport. Subject matter will be based in part on current literature. Student participation will be required. (alternate years)

PHSI 6500. Special Topics: Introduction to Research (2-5 credits) — This course is intended for beginning graduate students and will be conducted in the laboratory of a potential sponsor of the student's research. It will include training in the various technical procedures used in that laboratory and may serve to introduce the student to research methodology in a field of physiology. (alternate years) Hours by arrangement for variable credit.

PHSI 7960. Physiology Dissertation Research (15-21 credits) — Supervised research toward thesis at the level of the doctoral degree is the content of this course. Generally up to 12 credits; exceptionally up to 18 credits. (every semester)

Public Management Course Listing (PMGT) Courses for Graduate Students Only

PMGT 5100. Introduction to Public Administration (3 credits) — A survey of and introduction to the field of public administration. The history and development of the civil service, as well as the major subfields of the discipline, and the theories and concepts of public administration will be presented.

PMGT 5120. Public Personnel Management (3 credits) — An exploration of the skills, knowledge, and abilities necessary for successful

human resource management with some consideration of the history of the civil service as well as recent trends, legislation, and relevant court decisions.

PMGT 5140. Public Organization Theory (3 credits) — This course provides an introduction to the basic theories of organizational structure and behavior as they relate to the public sector.

PMGT 5160. Public Budgeting & Finance (3 credits) — This course provides a survey of public budgeting and finance, with consideration of the various theories and techniques of budgeting, finance, and taxation.

PMGT 5180. Public Policy Analysis (3 credits) — This course provides the basic techniques of policy analysis and decision making for the public sector.

PMGT 5200. Administrative Law and Practice (3 credits) — An introduction to the field of administrative law, with a focus on areas of importance to practicing public administrators: tort liability, immunity, regulatory agency rulemaking, and agency adjudication.

PMGT 5220. Intergovernmental Relations (3 credits) — This course provides an introduction to intergovernmental relations and federalism.

PMGT 5240. Seminar in Public Management (3 credits) — Students examine specific cases involving real life instances of public-sector decision making. It helps students put themselves in the manager's or administrator's place and arrive at a viable solution to the issue or problem presented.

PMGT 5260. Seminar in Municipal Services (3 credits) — This course offers an intensive review of problems in municipal service management, with special attention to public works.

PMGT 5280. Seminar in Public Risk Management (3 credits) — An introduction to the subject of risk management in the public sector. The problem of uncertainty or loss is an issue that is receiving increased attention in the public sector. The course examines areas of risk, classification of risk, and ways in which risk can be managed or addressed.

PMGT 5500. City Management Profession (3 credits) — Approaches to the management of small cities. Topics include council-manager relations and relations with department heads.

PMGT 5520. Urban Government (3 credits) — An analysis of the complexities of urban government in modern American society. Topics include analysis of intergovernmental relations stressing interlocal and regional forms and varieties of local government, policies inherent in metropolitan development and multijurisdictional urban centers, and integral effects of local and metropolitan policies.

PMGT 5750. Public Sector Financial Management (3 credits) — *Prerequisite.* PMGT 5160 or one course in accounting The management of public funds including: cash management, forecasting, investments, purchasing, debt administration and assessing financial condition.

PMGT 5800. Public Management Internship (3 credits) — *Prerequisite.* Permission of M.P.A. *Advisor.* An experiential learning course that entails an internship experience of 14 weeks with a municipality or other public, private, or not-for-profit agency. The student must locate and acquire his or her own internship. The project or work assignment for this internship generally forms the basis for the M.P.M. Report.

PMGT 5820. Public Management Consultantship (3 credits) — *Prerequisite.* Permission of M.P.A. *Advisor.* Supervised consultantship in a municipal government or nonprofit agency.

PMGT 5840. Public Management Report (3 credits) — *Prerequisite.* PMGT 5800 or PMGT 5820. This course requires the student to prepare an in-depth report describing and evaluating his or her experience in PMGT 5800 or 5820 and integrating the experience with knowledge and skills acquired throughout the M.P.M. program. Consultation with the director of the M.P.M. program is recommended before enrollment.

PMGT 5955. Topics in Public Management (3 credits) — *Prerequisite.* Dependent on subject matter. Selected topics of current interest in public management. Offered when subject matter and adequate student demand require. Consultation with instructor is recommended before enrollment.

PMGT 5990. Reading and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university

facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Professional Roles/Mental Health Nursing Course Listing (PMNU)

Courses for Graduate Students Only

PMNU 5000. Conceptual Systems for Advanced Nursing Practice (2 credits) — The philosophical dimensions of the processes of ways of knowing and conceptualization which are linked to research and practice are introduced. Analysis and evaluation of nursing and related concepts, theories, and models are correlated with theory development, research, and practice. (fall)

PMNU 5001. Nursing Research and Design (3 credits) — This course includes a study of the methodology of research in nursing, evaluation of research designs, and the critical appraisal of the results of research. Emphasis is on the analysis and application of the research process to nursing theory and nursing practice. (fall, spring, summer)

PMNU 5002. Policy and Ethics in Advanced Nursing Practice (3 credits) — *Prerequisite.* Admission to the master's nursing program or permission of the instructor. An overview of ethics and health care policy in the United States and the implications for nurses, nursing, and health care delivery. Ethical decision-making process is applied. (fall)

PMNU 5003. Theories and Concepts in Professional Role Development: Seminar (1 credit) — Theories and concepts inherent in various advanced practice roles are explored, analyzed, and evaluated. Change, communication, learning, systems, role, and selected organizational behavior theories and concepts will be discussed with an emphasis on their implications for professional role development. Discussion will focus on advanced practice roles of care-giving, collaborating, consulting, teaching, advocacy, and leadership.

PMNU 5004. Seminar in Professional Roles (1 credit) — Issues and concepts inherent in various advanced practice roles are explored, analyzed, and evaluated. Discussion will focus on issues generated by role conflict and ambiguities in practice. Topics which promote the development of negotiation, entrepreneurial, contract development, and financial management skills will also be addressed in relation to the practice roles of care-giving, collaborating, consulting, teaching, investigating, advocacy, and leadership. (fall)

PMNU 5008. Alternative Health Practices, Therapies, and Systems (2 credits) — Alternative health practices, therapies, and systems are explored and examined in relation to the development and implementation of appropriate professional nursing strategies in a community needs-based approach to health care delivery. Cultural and ethnic rituals and practices, the influence of the holistic health care movement, and various concepts of energy and healing systems will be explored. (variable)

PMNU/ALNU/FCNU/ 5019. Supervised Experience in Teaching (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with teaching assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

PMNU/ALNU/FCNU/ 5029. Supervised Experience in Research (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with research assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

PMNU/ALNU/FCNU/ 5039. Supervised Experience in Administration or Service (1 credit, repeatable) — This is a required course for graduate assistants or tuition scholars with administrative or service assignments. This course is designed to provide graduate assistants with supervision and training opportunities that serve to integrate their graduate assistantship assignment and graduate program or professional goals and activities. It is offered on a S/U basis and is not counted as degree credit. (fall, spring)

PMNU/ACCT/PUBH 5050. Health Care Accounting and Finance (3 credits) — This course applies the concepts of accounting and finance within the context of the health care industry. Course coverage includes basic accounting and finance principles and how these principles are applied in the health care arena. Topical coverage includes financial statement preparation and analysis, cash flow analysis, cost behavior and control, capital acquisition, budgeting, reimbursement mechanisms, and managed care. (fall)

PMNU 5110. Interdisciplinary Approaches to Bioethical Issues (3 credits) — *Prerequisite: Permission of the instructor.* This interdisciplinary course examines the theoretical foundations of bioethics, analyzes ethical issues of common concern to health care professionals from several disciplines, and promotes understanding of bioethical issues within an interprofessional context. (spring)

PMNU 5303. Psychopharmacology (3 credits) — *Prerequisite: Admission to graduate program or permission of instructor.* This course is designed to familiarize health profession students with the basic principles of psychopharmacology and to explore medications used to treat psychiatric disorders. The physiological basis of mental illness will be reviewed and the principles of medications used in mental health care examined. (spring)

PMNU/MGMT/PUBH 5401. Rural Health Issues (3 credits) — This interdisciplinary course addresses contemporary issues relevant to the delivery of health care in rural areas, particularly those of Appalachia. This course focuses on rural communities and is taught in a problem-solving, case project format with interdisciplinary team presentations and discussions.

PMNU 5402. Behavioral Health Concepts for Adults (3 credits) — This course is designed to provide advanced practice nurses with the necessary knowledge base to provide care for adults and their families experiencing complex behavioral health problems. Content will emphasize critical thinking and decision-making skills through the application of developmental, biological, interpersonal, and intrapersonal theory to behavioral health care nursing. (summer)

PMNU 5403. Behavioral Health for Adults: Practicum (3 credits) — *Prerequisite: Admission to the graduate nursing program or permission of the instructor. Co- or prerequisite: PMNU 5402.* This course will prepare advanced practice nurses with the clinical knowledge base needed to provide care to adults experiencing complex behavioral health problems. Clinical experiences will emphasize the application of developmental, biological, interpersonal, and intrapersonal theories to the care of adult clients with behavioral health problems. (variable)

PMNU 5404. Advanced Psychiatric Nursing Care I (3 credits)—*Prerequisites: Graduate-level Pharmacology, Health Assessment, Pathophysiology. Pre-corequisite: PMNU 5303.* This course will provide a foundation for the use of diagnostic reasoning and advanced therapeutics in the specialty care of individuals experiencing a psychiatric disorder and their families.

PMNU 5405. Advanced Psychiatric Nursing Care I: Practicum (3 credits)—*Prerequisites: Graduate-level Pharmacology, Health Assessment, Pathophysiology. Pre-corequisite: PMNU 5404.* This course provides the student opportunities to apply specific knowledge and develop clinical judgment in the specialized care of individuals experiencing a psychiatric disorder and their families.

PMNU 5408. Advanced Psychiatric Nursing Care II (2 credits)—*Prerequisite: PMNU 5404.* This course will focus on the integration of the advanced practice psychiatric nursing role into the larger context of health care by examining models of service delivery for the specialized practice of psychiatric nursing.

PMNU 5409. Advanced Psychiatric Nursing Care II: Practicum (2 credits)—*Prerequisites: PMNU 5404 and 5405. Pre-corequisite: PMNU 5408.* This course will provide students with a variety of clinical experiences in diverse settings in order to provide a foundation for implementation of the role of psychiatric nurse practitioner within the larger context of health care.

PMNU 5410. Interpersonal Treatment Modalities (3 credits)—*Prerequisite: PMNU 5404.* This course provides students with a conceptual theory-base for implementing advanced practice psychiatric nursing psychotherapy interventions.

PMNU 5411. Interpersonal Treatment Modalities: Practicum (3 credits)—*Prerequisite: PMNU 5404. Pre-corequisite: PMNU 5410.* This course provides students with clinical experiences in implementing advanced practice psychiatric nursing psychotherapy interventions.

PMNU/PUBH/MGMT 5505. Managing Health Care Organizations (3 credits) — *Prerequisite: PUBH 5500 or permission of instructor.* This course introduces the key fundamentals that provide an understanding of organization principles and practices and provides organizational insights pertinent to the administration of various types of health service organizations. (fall, spring)

PMNU 5510. Organizational Theory and Nursing Administration (3 credits) — *Prerequisite: PMNU 5000.* Analyzes organizational theory and the role of the nurse administrator. Examines alternative forms of organizational structure, organizational culture, design parameters, and forces for and against change. (spring)

PMNU 5520. Fiscal Management in Nursing Administration (3 credits) — Examines management of fiscal resources in nursing service settings. (summer)

PMNU/PUBH/MGMT 5525. Health Services Delivery and Organization (3 credits) — *Prerequisite: PUBH 5500 or permission of the instructor.* This course focuses on the identification and analysis of factors and interrelationships which influence the operation of health care organizations with specific attention to hospitals, local health departments, multi-institutional systems, and strategic alliances. These organizations will be examined and discussed comparatively with other types of health service agencies.

PMNU 5530. Health Care Organizations and Law (3 credits) — *Prerequisite: Admission to School of Graduate Studies.* The content of this course includes an overview of the legal system with an emphasis on general principles of liability, defenses, and contracts. Through class discussions and presentations, legal issues facing health care administrators are presented including standards for accreditation, information management, human resources management, and need for legal consultation. (spring)

PMNU/PUBH/MGMT 5550. Human Resource Management in Health Organizations (3 credits) — This course focuses on the skills and concepts required in managing people in health service organizations, as well as the human resource implications of changes in the external environment. Emphasis will be placed on the technical aspects of human resource management as well as skills required to manage people. (spring)

PMNU 5560. Nursing Administration Practicum I (2 credits) — *Prerequisites: PMNU 5505, 5510, 5550. Pre-Corequisite: PMNU 5520.* This course provides in-depth practicum experiences with approved preceptors in nursing administrative roles similar to those in which students will practice following program completion. (summer)

PMNU 5570. Nursing Administration Practicum II (2 credits) — *Pre-corequisite: PMNU 5560.* This course provides in-depth practicum experiences with approved preceptors in nursing administrative roles similar to those in which students will practice following program completion. Students will complete a project and will analyze nursing administration and leadership roles. (fall)

PMNU/MGMT/PUBH 5590. Strategic Planning for Health Care (3 credits) — *Prerequisites: PMNU/MGMT/PUBH 5505 and/or permission of the major advisor.* This course applies the concepts of strategic planning within the context of the health care industry. A variety of perspectives, ranging from those of the insurance industry, to public health facilities, to large health care networks, to small practices of health care providers are included. (summer)

PMNU/ALNU/FCNU 5900. Independent Study (1-6 credits) — Independent study in consultation with a member of the graduate nursing faculty. Directed study and/or research in an area for which the student has special interest and adequate preparation. (variable)

PMNU/ALNU/FCNU 5960. Thesis (1 - 6 credits) — (fall, spring, summer)

PMNU/ALNU/FCNU 5990. Readings and Research (1-3 credits, repeatable) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies,

research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

PMNU 6000. Theoretical Foundations of Nursing Practice (3 credits) — This course will actively engage students in the analysis and evaluation of contemporary nursing knowledge, conceptual systems, and theories. Philosophical and historical dimensions of the development of nursing knowledge, the relationship between knowledge development and development of the discipline, strategies for theory development, and theoretical adequacy for nursing practice will be explored. (summer)

PMNU 6002. Health Policy Leadership (3 credits) — This course is designed to help students develop skill in analyzing health policy development, evaluating current health policy, and providing leadership to influence health policy at various governmental levels. (fall)

PMNU 6020. Advanced Data Analysis (4 credits) — This course examines the various methods of data evaluation available to nurse researchers. Assumptions, theoretical implications, and scientific perspectives which serve as the basis for data analysis in nursing research will be explored. (fall)

PMNU 6040. Qualitative Methods in Nursing Research (3 credits) — Students in this course will complete in-depth comparisons of published qualitative nursing research, including examining philosophical perspectives, study design, instrumentation, sampling and data analysis. Pragmatic considerations in implementing clinical nursing research will be analyzed culminating in development of a research proposal which will address a nursing research question using a qualitative methodology. (summer)

PMNU 6100. Philosophy of Nursing Science (3 credits) — *Prerequisite: Admission to the D.S.N. program.* This course clarifies traditional and contemporary philosophic approaches to scientific knowledge development and illuminates interrelationships among philosophies of science, theory, scientific methods, practice, and nursing. (summer)

PMNU 6110. Interdisciplinary Approaches to Bioethical Issues (3 credits) — This interdisciplinary course examines the theoretical foundations of bioethics, analyzes ethical issues of common concern to health care professionals from several disciplines, and promotes understanding of bioethical issues within an interprofessional context. (spring)

PMNU/ALNU/FCNU 6960. Doctoral Dissertation (1-12 credits) — *Prerequisite: Successful completion of Qualifying Examination.* Supervised research toward dissertation.

PMNU/ALNU/FCNU 6990. Readings and Research (1-3 credits, repeatable)

Courses Co-Listed in Undergraduate Catalog

PMNU 5017. Health Care Informatics (3 credits) — Current and potential applications of the computer to health care are discussed. These same applications are analyzed for their impact on the client, health care professional, and health care delivery system. Requires access to a computer with a browser that facilitates access to the World Wide Web and a university or private sector electronic mail account. (spring)

PMNU 5027. Health Care Law (3 credits) — This course focuses on the influence of state and federal laws and ethics on patients, practitioners and practice settings. (variable)

PMNU/ALNU/FCNU 5957. Special Topics in Nursing (1-6 credits, repeatable) — *Prerequisite: Permission of the instructor.* Special topics related to nursing and health care will be presented. Course may include didactic and experiential methods of instruction. May be repeated for credit if course content is significantly different or advanced.

Psychology Course Listing (PSYC) Courses for Graduate Students Only

PSYC 5210. Statistical Methods (3 credits) — *Prerequisite: Psychology*

2810. This course includes an overview of inferential statistics including topics such as probability, hypotheses testing, population sampling, and analysis of regression and prediction. Both parametric and nonparametric tests are reviewed. Parametric tests include the Z-test, t-test, Sandler A, Analysis of Variance, Analysis of Covariance, and the Newman-Keuls test. Nonparametric tests include the Chi square test, Sign test, Wilcoxon test, Mann-Whitney test, Kruskal-Wallis test, and the Friedman test. Students learn the purpose of these tests and their strengths and limitations. (fall)

PSYC 5220. Personality Theory (3 credits) — *Prerequisite: Psychology 4100.* The course aims to familiarize students with selected writings of some of the major personality theorists. Its intent is to consider in some depth a number of specific aspects of normal and abnormal interpersonal adjustment and to provide a basis for the student's own thinking about how people provide a basis for the student's own thinking about how people grow, develop, and come to have problems. The work load of the course will consist primarily of reading, thinking about, and discussing an extensive list of primary source writing.

PSYC 5230. Advanced Developmental Psychology (3 credits) — *Prerequisite: HDAL 2310, 2320, or 2330.* The study of theories, principles, and research that relate to understanding human development throughout the life span. The course will deal with information concerned with all the stages of development, including adult development. (spring)

PSYC 5410. Correlation and Multiple Regression (3 credits) — This course will provide a detailed overview of correlational and multiple regression procedures as used in contemporary psychological research.

PSYC 5530. Sport Psychology (3 credits) — This course is concerned with the application of psychological concepts and principles to sports participation and the sports setting.

PSYC 5610. Topical Seminar in Developmental Psychology (3 credits) — In this graduate topical seminar, we will read extensively about and critically evaluate an exciting and contemporary subtopic within the larger field of developmental psychology. Specific topics of study will typically vary as the course rotates from semester to semester and from faculty member to faculty member.

PSYC 5620. Topical Seminar in Social Psychology (3 credits) — In this graduate topical seminar, we will read extensively about and critically evaluate an exciting and contemporary subtopic within the larger field of social psychology. Specific topics of study will typically vary as the course rotates from semester to semester and from faculty member to faculty member.

PSYC 5630. Topical Seminar in Cognitive Psychology (3 credits) — In this graduate topical seminar, we will read extensively about and critically evaluate an exciting and contemporary subtopic within the larger field of cognitive psychology. Specific topics of study will typically vary as the course rotates from semester to semester and from faculty member to faculty member.

PSYC 5640. Topical Seminar in Behavioral Neuroscience (3 credits) — In this graduate topical seminar, we will read extensively about and critically evaluate an exciting and contemporary subtopic within the larger field of behavioral neuroscience. Specific topics of study will typically vary as the course rotates from semester to semester and from faculty member to faculty member.

PSYC 5650. Topical Seminar in Applied Psychology (3 credits) — In this graduate topical seminar, we will read extensively about and critically evaluate an exciting and contemporary subtopic within the larger field of applied psychology. Specific topics of study will typically vary as the course rotates from semester to semester and from faculty member to faculty member.

PSYC 5660. Topical Seminar in Clinical Psychology (3 credits) — In this graduate topical seminar, we will read extensively about and critically evaluate an exciting and contemporary subtopic within the larger field of clinical psychology. Specific topics of study will typically vary as the course rotates from semester to semester and from faculty member to faculty member.

PSYC 5825. Psychopathology (3 credits) — *Prerequisites: Abnormal psychology and permission of instructor.* Course is an advanced course in

psychopathology aimed at an in-depth review of the DSM as well as conceptualization of diagnosis and treatment processes in clinical psychology. (fall)

PSYC 5800. Teaching in the Psychological Sciences (3 credits)

— The purpose of this course is to review the literature pertaining to teaching in the psychological sciences, to develop pedagogically sound techniques through which to present psychological material, and to gain hands-on experience in psychological instruction.

PSYC 5830. Psychological Assessment I: Adults (3 credits)

— *Prerequisites:* *Psychology 4100 or 5220, a course in statistics, and permission of the instructor.* Administration, scoring and interpretation of the major individual intelligence, cognitive screening, and personality assessments for adults.

PSYC 5850. Psychological Assessment II: Child (3 credits) —

Prerequisites: *Psychology 5220 and permission of the instructor.* The aim of this course is to familiarize students with a variety of intelligence and personality assessment instruments commonly used in clinical mental health settings with children and to provide experience in administration, scoring, and interpretation of these instruments.

PSYC 5870. Interviewing Techniques in Psychology (3 credits)

— *Prerequisites:* *Psychology 4320, 5220, and permission of instructor.* This class will introduce students to the history of clinical psychology and will review legal, professional, and ethical issues confronting the psychological examiner working in a mental health setting. In addition, the areas of mental status evaluation, psychopharmacology, and behavioral assessment will be reviewed. Students will be taught fundamental interviewing skills and will participate in supervised interviews. (fall)

PSYC 5900. Independent Study in Psychology (3 credits) —

Prerequisite: *Permission of instructor.* Independent study in consultation with a member of the psychology faculty. Among projects the student may elect is an original independent research project under the supervision of a member of the psychology faculty. (every semester)

PSYC 5910. Practicum in Mental Health I (3 credits) — Prerequisite:

Permission of the Clinical Psychology Coordinator. Practical field experiences conducted in a mental health agency under the supervision of licensed psychologists. A variety of structured learning experiences may be offered including assessment, crisis intervention, intake interviews, treatment team meetings, attending case consultations, and other clinical activities as determined by the instructor and the field supervisor. At least 150 clock hours are required.

PSYC 5911. Practicum in Mental Health II (3 credits) — Prerequisite:

Permission of the Clinical Psychology Coordinator. Continuation of practical field experiences as conducted in a mental health agency under the supervision of licensed psychologists. A variety of structured learning experiences may be offered including assessment, crisis intervention, intake interviews, treatment team meetings, attending case consultations, and other clinical activities as determined by the instructor and the field supervisor. At least 150 clock hours are required.

PSYC 5950. Methods of Psychological Research (3 credits)

— *Prerequisites:* *Psychology 2810 and 5210 or permission of instructor.* All psychology graduate students must complete an acceptable thesis to receive a master's degree in psychology. The purpose of this course is to assist the student in this undertaking by providing information on how to select a research problem and how to prepare a final research report. Numerous skills must be developed and cultivated in order to complete a thesis, such as understanding how to use the library or computer search services and how to prepare, analyze, and interpret research findings. Each student will be required to prepare a research prospectus in this course. (spring)

PSYC 5960. Thesis (3 credits) — Prerequisite: *Permission of instructor.*

A research project developed and documented under the supervision of a faculty committee. The research project is documented in the form of a thesis. (as needed)

PSYC 5990. Readings and Research (1-3 credits) —

Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately

covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

PSYC 5989-99. Cooperative Education (variable) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Planned and supervised work assignments in business, industry, and government agencies. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students receive compensation as full-time employees. (every semester)

Courses Co-listed in Undergraduate Catalog

PSYC 5317. Perception (3 credits) — Prerequisites: *Psychology 1310 and 2311-2312.* A survey of vision, visual perception, audition, pain perception, color perception, theories of perception, pattern perception, depth perception, chemical senses, and developmental perception. Various demonstrations and audiovisual presentations are also included. (spring)

PSYC 5607. Child Psychopathology (3 credits) — Prerequisites: *PSYC 1310, 4320, and HDAL 2310.* The purpose of the course is to acquaint students with aspects of diagnosis, measurement, and treatment of child psychopathology. (fall, summer)

PSYC 5707, 5717. Advanced Behavioral Neuroscience (4 credits) — Prerequisites: *Psychology 1310, Psychology 3030-31, and General Biology.* A laboratory-based course outlining how the brain interacts with the rest of the body to determine our behavior. Lecture, discussion, and laboratory sessions are integrated to introduce students to modern methods of psychophysiological research as it applies to neuroanatomy, neurophysiology, neuroendocrinology, and biofeedback instrumentation. Areas covered will include the physiological bases of learning, memory, sleep, dreaming, emotion, psychopharmacology, and psychopathology. Classroom discussions will be augmented with readings from recent research articles. (spring)

PSYC 5807. Forensic Psychology (3 credits) — Prerequisite: *PSYC 1310.* This course is designed to introduce students to issues pertaining to the interface between psychology and law, with an emphasis on issues of current practice and ethical issues in forensic psychology.

PSYC 5817. Introduction to Psychological Testing (3 credits) — Prerequisites: *Psychology 1310, 2810, 2311-12 (Human Development and Learning 4817).* A history and overview of the standardized evaluation methods commonly used in the assessment of individuals and groups. Topics covered are validity, reliability, and statistical concepts for the evaluation and interpretation of test data. The student is given an overview of ability tests, interest tests, and personality tests. Experience is provided in the administration, scoring, and interpretation of selected tests.

PSYC 5957. Special Topics in Psychology (1-6 credits) — Prerequisite: *Permission of instructor.* Special offerings in psychology on topics such as group therapy, family dynamics, cognitive processes, ethics, etc. (as needed)

**Public Health Course Listing (PUBH)
Courses for Graduate Students Only**

PUBH 5020. Philosophy of Public Health (1 credit) — Prerequisite: *Graduate Standing.* This course serves as an introduction to public health practice.

PUBH/ACCT/PMNU 5050. Health Care Accounting and Finance (3 credits) — This course applies the concepts of accounting and finance within the context of the health care industry. Course coverage includes basic accounting and finance principles and how these principles are applied in the health care arena. Topical coverage includes financial statement preparation and analysis, cash flow analysis, cost behavior and control, capital acquisition, budgeting, reimbursement mechanisms, and managed care.

PUBH 5110. Assessment of Individual and Community Health (3 credits) — Prerequisites: *Prior or concurrent registration in PUBH 5200 and 5400.* This course covers theory and application of techniques for assessing individual and community health status, risk and needs. Identifying, collecting and utilizing

appropriate demographic and health-related data are examined as a foundation for addressing health problems in a responsive and meaningful way. Students select a real world health problem or population to be the focus of assessment projects during the semester.

PUBH 5120. Techniques of Research and Evaluation (3 credits) — *Prerequisites:* PUBH 5110, 5200, and 5310. This course introduces research and evaluation methods appropriate to community health programs and issues. Community health strategies are studied from the dual perspectives of 1) establishing and identifying desired program standards and outcomes and 2) developing new knowledge about the relationship of health to individuals and group behavior and organizational and social change.

PUBH 5130. Planning and Implementation of Community Health Programs (3 credits) — *Prerequisites:* PUBH 5110, 5120 and 5200. Building on experiences in previous courses in the program sequence, this course focuses on the planning and implementation of specific health programs to meet identified needs and professional standards. A variety of theory-based intervention strategies will be discussed. Students will develop specific skills while delivering actual programs to selected populations.

PUBH 5150. Consulting in Organizations and Communities (3 credits) — *Prerequisite:* PUBH 5200 or permission of instructor. This course focuses on the application of community health skills in community and organizational settings. Consultation, training, group process and organizational and community development concepts and skills are emphasized.

PUBH 5200. Social and Behavioral Foundations of Public Health (3 credits) — This course reviews the concepts and methods of social and behavioral sciences relevant to the identification and solution of public health problems. Social, cultural, economic and environmental factors are discussed as the fundamentals upon which public health has been developed at the various governmental and community levels.

PUBH 5210. Professional Development for Public Health Practice (2 credits) — This course offers students opportunities to interact with faculty, alumni, preceptors, and health professionals in the context of continuing education workshops covering important, timely, and desirable public health topics. Students attend 30 contact hours of continuing education seminars over the duration of the course in consultation with their academic advisors.

PUBH 5310. Biostatistics (3 credits) — This course is an introduction to the collection and analysis of public health data. Elements of statistical inference, probability distribution, sampling, confidence interval, and estimation of means and rates are reviewed.

PUBH 5340. Health Appraisal Techniques (3 credits) — In this course, the application of health appraisal and counseling to determine the health status of selected populations are discussed. Records of findings, and the remediation of health problems with appropriate health service personnel are emphasized.

PUBH 5400. Epidemiology (3 credits) — *Pre-requisite:* PUBH 5310 or permission of instructor. This class is designed to provide the student with an introduction to the principles of epidemiology and the application of epidemiology to public health practice. The use and analysis of health statistics are emphasized.

PUBH 5401. Rural Health Issues (3 credits) — This interdisciplinary course addresses contemporary issues relevant to the delivery of health care in the rural areas, particularly those of Appalachia. It focuses on rural communities and is taught in a problem-solving, case project format with interdisciplinary team presentations and discussions.

PUBH 5500. Health Service Administration (3 credits) — The course presents managerial theory in a way that demonstrates its generic applicability to all types of health service organizations. This is accomplished by using a process orientation that focuses on managerial functions, concepts, principles and roles within context of health care organizations.

PUBH/PMNU/MGMT 5505. Managing Health Care Organizations (3 credits) — *Prerequisite:* PUBH 5500 or permission of instructor. This course focuses on new approaches to leading health care organizations. Students will be presented both the conceptual and technical aspects of the art and science of administering, managing, and leading health care organizations.

PUBH 5510. Long-Term Care Administration (3 credits) — This course provides an introduction to the principles and applications of long-term care administration. General management, personnel management, and government regulations will be discussed. This course will enhance a student's process toward licensure required for long-term care administrators.

PUBH/PMNU/MGMT 5525. Health Services Delivery and Organization (3 credits) — *Prerequisite:* PUBH 5500 or permission of instructor. This course focuses on the identification and analysis of factors and interrelationships which influence the operation of health care organizations with specific attention to local health departments, hospitals, multi-institutional systems, integrated health systems and strategic alliances. These organizations will be viewed and discussed comparatively with other types of health service agencies.

PUBH 5535. Health Policy, Politics and Analysis (3 credits) — This course applies the analytical skills of policy formation to the health professions. The course will focus on analyzing the processes in the design, adoption, implementation, and evaluation of current health policy.

PUBH 5550. Human Resource Management in Health Organizations (3 credits) — This course focuses on the skills and concepts required in managing people in health service organizations, as well as the human resource implications of changes in the external environment. This course focuses on the technical aspects of human resource management as well as the managerial skills required to manage people.

PUBH 5590. Strategic Planning for Health Care (3 credits) — *Prerequisites:* PMNU/MGMT/PUBH 5505 and/or permission of the instructor. This course applies the concepts of strategic planning within the context of the health care industry. Issues associated with competing in a changing health care environment are explored with a focus on the development of solutions to problems associated with this change. The strategic management of health care delivery will be addressed from a variety of perspectives, ranging from those of the insurance industry, to public facilities, to large health care networks, to small practices of health care providers.

PUBH 5600. Industrial Health Education (3 credits) — This course explores the special needs of employed populations. Included is an in-depth study of the application of diverse disciplines to promote and enhance the health of workers in industrial settings.

PUBH 5620. Hazards in the Workplace (3 credits) — Focus is on the occupational hazards that have a significant and detectable effect on the health and well-being of employees and analysis of strategies used to ameliorate these problems.

PUBH 5850. Public Health Program Field Experience (1-6 credits) — In this course, students apply the principles of public health in a planned and supervised learning experience. Through public health work in actual fields settings, students observe and participate in the daily functioning and operations of a public health agency or health service organization.

PUBH 5900. Grant and Proposal Development (3 credits) — Students gain the skills to prepare proposals for grants, contracts, and other external funding for health activities. Included are budgeting, contact administration, technical specifications and strategies for locating funding sources. Students will prepare a proposal.

PUBH 5950. Research Seminar (3 credits) — This course will discuss the principles and procedures of research in public health. Students will develop thesis proposal.

PUBH 5960. Thesis (1-4 credits)

PUBH 5989. Cooperative Education (1-3 credits) — Students must work through the Cooperative Education Office prior to registration enrolling in this course. This course provides academic credit for planned and supervised work assignments in business, industry, and government agencies. Student may receive compensation as an employee.

PUBH 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits

do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Co-Listed Undergraduate/Graduate Courses

PUBH 5007. Principles and Practices of Patient Education (3 credits) — In this course students develop skills in the design and use of educational methods and materials to provide specialized education for the patient in the clinical environment.

PUBH 5357. Thanatology (3 credits) — Explores the concept of death, dying, grief and addresses the topics of: medical, legal, social, cultural and religious view of death both in America and other cultures. Through these studies, students will be able to deal with their own emotions and better understand that death is a process of life.

PUBH/SPCH 5377. Health Communication (3 credits) — *Prerequisite: PUBH 5200, or permission of the instructor.* A study of the interpersonal, group, organizational, and public communication processes that shape beliefs, decisions and behavior regarding health, sickness, and health care. The course examines attitudes and actions of many participants in health communication, including citizens, health professionals, and those engaged in public debate of health issues. (Students cannot receive credit for both SPCH 5377 and PUBH 5377.)

PUBH 5607. Gerontology and Health (3 credits) — The course examines the aging process and familiarizes the student with physical, physiological, psychological, and social changes which have an impact on health.

PUBH 5707. International Health: An Overview of Problems and Issues (3 credits) — Designed to provide an understanding of the patterns of medical care delivery, public health practices and the factors that inhibit or enabling their applications among community groups and organizations around the world.

PUBH 5907. Independent Study in Public Health (1-3 credits) — This course is designed for students desiring an in-depth study of health problems in a special area of interest.

PUBH 5937. Stress Management (3 credits) — This course is a survey of the literature and research on stress. Emphasis is given to the identification of stressors, development of adaptive coping skills, and practice of relaxation techniques among health professionals.

PUBH 5957. Topic in ... (1-6 credits) — *Prerequisite: Permission of instructor.* This course is developed and offered when there is sufficient demand for additional study of a specific public health topic. Consultation with the instructor is required prior to enrollment.

Public Relations Course Listing (PUBR) Courses for Graduate Students Only

PUBR 5301. Topics in Public Relations (2-6 credits)

PUBR 5310. Media Management (3 credits) — A study of media management; comparative research about various types of media industries and firms and their responsibilities and goals.

PUBR 5320. Public Relations Case Studies (3 credits) — A study of the ethical and professional practices in public relations and mass media through a case study approach. Study includes in-depth examination of controversial cases involving media and public relations in PR firms, corporate communications departments, government agencies, political organizations and non-profit environments.

PUBR 5900. Independent Study in Public Relations (1-3 credits)

Reading Course Listing (READ) Courses for Graduate Students Only

READ 5170. Materials for Reading and Language Arts (3 credits) — Selection and use of materials in reading and other language arts; the development of teacher- and pupil-made materials.

READ 5190. Linguistics of Reading (3 credits) — Relationships of local dialects to reading; alphabets; phonology; morphology, syntax, and semantics as related to reading; aspects of psycholinguistics which are primarily linguistic.

READ 5200. Contemporary Issues in Storytelling (1-3 credits) — This course addresses current issues and developments in the discipline of storytelling. Subjects range from artistic and practical aspects of performance to specialized uses of storytelling in the professions. The focus is on advanced performance techniques, technological advances and/or uses of storytelling in various venues such as education, business, health occupations, etc.

READ 5210. Psychology of Reading (3 credits) — Psychological bases of reading readiness; learning theories applied to reading; visual and auditory perception in reading; elements of psycholinguistics which are primarily psychological. (summer)

READ 5230. Advanced Storytelling (3 credits) — An in-depth study of specific, advanced techniques of storytelling in both delivery and use. Includes an analysis of nationally known tellers and current issues in storytelling.

READ 5231. Advanced Diagnostic Procedures (3 credits) — *Prerequisite: READ 5027.* Supervised individual and group diagnostic procedures in reading and other language arts; may be repeated.

READ 5241. Practicum (1-3 credits) — *Prerequisite: 12 graduate credits in reading* Supervised individual and/or group teaching or storytelling activity; may be repeated for a maximum of (up to) six semester hours of credit.

READ 5830. Storytelling Institutes (1-2 credits) — *Prerequisite: Permission of instructor.* This course is designed to develop and refine the student's ability as a storyteller.

READ 5840. Story Dramatization (3 credits) — *Prerequisite: Permission of instructor.* This course provides an introduction to creative drama techniques for the classroom, the library, or in storytelling performance.

READ 5850. Story Performance (1-3 credits) — *Prerequisite: Permission of instructor.* This course is designed to prepare the student to perform as a storyteller. Emphasis will be placed on voice, movement, non-verbal behaviors, dialect and linguistic factors, appearance, and posture. May be repeated for a maximum of (up to) three semester hours of credit.

READ 5860. Story Research and Creation (1-3 credits) — *Prerequisite: Permission of instructor.* This course will research story motifs and culminate in the creation of original stories. May be repeated for a maximum of (up to) three semester hours of credit.

READ 5870. Multicultural Storytelling (1-3 credits) — *Prerequisite: Permission of instructor.* This course provides an overview of multicultural storytelling and an examination of the research of the impact of specific cultures on the storytelling medium. May be repeated for a maximum of (up to) three semester hours of credit.

READ 5880. Storytelling Research and Writing (1 credit) — *Prerequisite: Permission of instructor.* This course provides students with experiences in the creation of a storytelling journal. The seven-step process for journal completion will be studied.

READ 5890. Historical and Psychological Foundations of Storytelling (3 credits) — *Prerequisite: Permission of instructor.* This course analyzes the historical aspects of the story/content, the teller/delivery, and the audience/reception.

READ 5900. Independent Study (1-6 credits)

READ 5960. Thesis (3-6 credits) — *Prerequisite: Permission of the major advisor.* A major research project conducted and reported in approved research style.

READ 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

READ 5007. Workshop in Reading (1-4 credits) — Specific course content determined in advance of the course based on the needs of the group involved; content will stress recent developments in field; may be repeated providing specific content is different.(summer)

READ 5027. Diagnostic and Remedial Procedures in Reading (3 credits) — Emphasis on case study procedure; direct contact with children in diagnostic situations; formal and informal procedures for diagnosing reading skills, abilities, and aptitudes; methods and materials for the correction or improvement of diagnosed reading difficulties.

READ 5147. Basic Storytelling (3 credits) — Study of and practice in storytelling. Use of storytelling in various settings including classrooms, libraries, churches, and homes and as public events.

READ 5437. Reading Instruction in Middle and Secondary Schools (3 credits) — Organization of middle school and secondary school level reading programs; developmental, corrective, and remedial practices and procedures at the middle and secondary school levels; reading skills needed for various content areas.

READ 5817 Practical Applications of Storytelling: National Storytelling Festival Experience (1 credit) — *Prerequisite: Permission of instructor.* This course provides the student with training in planning, directing, and administering a storytelling festival. Festival activities introduce the student to various telling styles and content.

READ 5827. Practical Applications of Storytelling: Halloween Storytelling Festival (1 credit) — *Prerequisite: Permission of instructor.* This course is designed to prepare the student to organize and participate in a storytelling festival.

READ 5957. Topic in ... (1-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in reading. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Radio Television and Film Course Listing (RTVF) Courses for Graduate Students Only

RTVF 5401. Topics in Broadcasting (2-6 credits)

RTVF 5900. Independent Study in Broadcasting (1-3 credits)

Sports Management and Leisure Services Course Listing (SALM)

Courses for Graduates Students Only

SALM 5140. Current Topics and Issues in Recreation (3 credits) — Designed to survey current topics in recreation that are significant to the modern day student. Flexibility is provided to ensure the coverage of special interest areas.

SALM 5200. Issues in Sport Management (3 credits) — The purpose of this course is to provide a forum for the discussion of current issues affecting the field of Sports Management. The primary thrust of the course will be directed toward the modern day duties and responsibilities of a sport manager. Specific course content will vary with the evolution of the field of Sport Management.

SALM 5215. Sport in Society (3 credits) — This course provides an introduction to the study of sport and its relationship to society and other social institutions. Topics will be analyzed in such a manner that they promote systematic, issue-related thinking among students. The emphasis of this course is on the current relationships between sport and society. (annually)

SALM 5225. Planning and Operating Facilities in Physical Education, Fitness and Sports (3 credits) — A study of the principles related to the planning and operation of facilities for physical education, fitness, and sport activities. Emphasis is given to facility development, funding sources, and the maintenance and daily operation of these facilities.

SALM 5230. Legal Issues in Physical Education and Sport (3 credits) — This course is designed to introduce and familiarize students with basic knowledge of the legal system and legal issues prevalent in physical

education, athletics, and recreational activities. Major focus of the course is on understanding the concept of negligence, where and how negligence occurs and identifying ways in which negligent acts can be reduced or eliminated. Other topics relating to the scope of legal issues will be addressed. These topics will include Title IX of the Education Amendments Act, violence in sport, product liability, drug testing, and transportation issues.

SALM 5232. Sport Communication and Media Relations (3 credits) — This course will provide a framework for understanding the connection between the informational and commercial sides of sport information management. Emphasis will be placed on allowing sport managers to acquire and refine effective ways of communicating, both internally and externally, with all their constituencies.

SALM 5235. Sport Psychology (3 credits) — The application of psychological concepts and principles to sports participation and the sports setting.

SALM 5240. Risk Management and Assessment in Sports (3 credits) — *Prerequisite: SALM 5230.* This course is designed to help the physical education teacher, principal, superintendent, fitness center director and sport management team initiate an active program of risk and liability assessment/management that will help ensure the safety of participants and spectators at sporting events and participants in physical activity. Students will learn to assess various sport/fitness/physical activity environments to identify potential risks.

SALM 5243. Sport Marketing. (3 credits) — This course is designed to provide students with a practical experience in sport marketing as it applies to all areas of the sport industry - professional, intercollegiate, interscholastic, campus recreation amateur, commercial and public sport agencies.

SALM 5245. The Financing of Sport. (3 credits) — This course is designed to provide students comprehensive coverage of many traditional and innovative revenue acquisition methods available to sports organizations.

SALM 5250. Internship in Sport Management (6 credits) — This course will give the sport management student the opportunity to put theory into practice. Students will work in a sport management agency for 40 clock credits per week (minimum of 400 clock credits) for an entire semester. Students will be consulted as to the sports management agency desired for the internship experience. (Students may be compensated for their work.)

Courses Co-listed in Undergraduate Catalog

SALM 5107. Alpine Tower Leadership (3 credits) — This course utilizes the Alpine Tower Complex as a unique educational modality for developing teamwork, trust, cooperation, communication, and respect for others in a problem-solving environment. In addition, students will also develop leadership skills necessary to facilitate the personal growth of others through educational experiences using the Alpine Tower Complex. Emphasis will also be given to the day-to-day management, operation, and maintenance of the Alpine Tower Complex and similar ropes course operations. This course will include service-learning experiences involving group leadership on the Alpine Tower Complex.

SALM 5117. Outdoor Leadership (3 credits) — This course is based on the student contract format and will provide students an opportunity to complete a course of study involving specialized outdoor leadership development with outdoor leadership organizations such as the National Outdoor Leadership School (NOLS), Outward Bound (OB), and Wilderness Education Association (WEA). The course will be a minimum of three (3) weeks in length including pre-field experience project completion and assessments. Specific course requirements will be established on an individual basis and the course grade assigned according to the established contract.

SALM 5127. Rocky Mountain Experience (3 credits) — This is a service-learning course that involves extensive travel and work in selected national parks in the Rocky Mountain region. During the course students will develop outdoor living skills, leadership skills in an outdoor environment; skills relative to trail and campsite construction and basic park maintenance; knowledge of the flora, fauna, and geological features of national parks visited; and knowledge of the impact of governmental policies on the management and operation of national parks. This course will involve extensive tent camping and travel by van as part of a group experience.

SALM 5137. Wilderness Education Association Stewardship Program (3 credits) [Based on the Wilderness Education Association (WEA) 18 point curriculum] — This course is a field-based experience designed to develop principles of wilderness ethics, land stewardship, effective group dynamics, and technical travel skills sufficient to move a group through the wilderness safely, enjoyably, and with a minimum of environmental and social impact.

Science Education Course Listing (SCED) Courses for Graduate Students Only

SCED 5114. Instructional Excellence in Science (K-8) (3 credits) — *Prerequisite: EDFN 5950.* This course provides elementary teachers (K-8) with innovative approaches to organizing, teaching, and assessing science learning. Emphasis is placed on understanding how students learn science and strategies that enable students to have successful learning experiences.

SCED 5904. Independent Study in Science (1-6 credits)

Courses Co-listed in Undergraduate Catalog

SCED 5417. Teaching Science in Secondary Schools (3 credits) — *Prerequisites: Forty-five credits of science or permission of instructor, and admission to teacher education.* Methods of teaching science in middle/junior and senior high. Emphasis on classroom management, teaching strategies, laboratory techniques, educational technology appropriate for secondary science teaching, demonstrations, selection of resources and materials, and visual arts. Students will be expected to participate in field experience activities.

SCED 5527. Science Methods for Early Childhood (3 credits) — *Prerequisites: Admission to Teacher Education and successful completion of all undergraduate science classes. Co-requisites: This course is to be taken with CUA1 4517/5517 and 4537/5537.* This course provides a PreK-4 science education perspective. Science teaching methodology, content, skills, and dispositions are examined with an emphasis on integration with mathematics and other appropriate subject areas. Learning needs of culture, gender, and special populations are explored. Students will be required to participate in field experience in PreK-4 settings.

SCED 5957. Topic in.... (2-6credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in science education. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

Sociology and Anthropology Course Listing (SOAA) Courses for Graduate Students Only

SOAA 5050. Sociology of Education (3 credits) — *Prerequisite: Permission of instructor.* This course emphasizes the school's relationship to local, state, area, and national society, and upon human interaction in the educational system. (variable)

SOAA 5110. Contemporary Social Theory (3 credits) — *Prerequisite: Sociology 5807 or permission of instructor.* This course presents an overview of major schools of social theory. (spring)

SOAA 5210. Sociological Research (3 credits) — *Prerequisite: Permission of instructor.* An overview of the entire research process. Topics include theory and hypotheses, sampling techniques, research designs, and data analysis. (fall)

SOAA 5315. Seminar in Crime and Delinquency (3 credits) — *Prerequisite: Permission of instructor.* An advanced overview of the most important theories and problems in crime and delinquency. (variable)

SOAA 5320. Program Evaluation (3 credits) — *Prerequisite: Permission of the instructor.* This course provides a perspective on the major theoretical and conceptual approaches to program evaluation. The course will be organized around four facets of program evaluation: Program planning, program monitoring, program impacts, and cost benefit/cost effectiveness evaluations. (variable)

SOAA 5444. Applied Data Analysis for the Social Sciences (3 credits) — *Prerequisite: Undergraduate statistics or permission of instructor.* This is a computer-intensive course designed to teach students basic skills in quantitative data analysis. Through an applied approach to data analysis and statistics, students

will gain practical experience in: using a comprehensive statistical software package, selecting and applying statistical techniques, and interpreting and formally writing the results. (variable)

SOAA 5500. Topical Seminar (3 credits) — *Prerequisite: Permission of instructor.* Study of current specialized area of sociological interest. May be repeated for credit. (variable)

SOAA 5620. Sociology of Age and the Life Course (3 credits) — *Prerequisite: Permission of instructor.* This seminar is designed as a survey of theoretical and methodological issues as well as substantive research in the area of aging and life course studies. Issues to be addressed pertain to all of the adult life span. (variable)

SOAA 5820. Skills in Applied Sociology and Anthropology (3 credits) — *Prerequisite: Permission of instructor.* An examination of how sociologists and anthropologists apply their theoretical knowledge and research skills, including the formulation, implementation, and evaluation of programs designed to solve human problems. (variable)

SOAA 5850. Supervised Internship (3-6 credits) — *Prerequisite: Permission of internship coordinator.* Planned and supervised professional assignments in public and private organizations, business, and/or industry. Internship placement and supervision will be established in consultation with the student's advisory committee. (variable)

SOAA 5870. Internship Placement Report (3 credits) — An analytical report demonstrating the varied ways in which sociological tools were applied in the internship experience. (variable)

SOAA 5900. Special Problems in Sociology (1-6 credits) — *Prerequisite: Permission of instructor.* (variable)

SOAA 5960. Thesis (3 credits) — *Prerequisite: Permission of graduate coordinator.* A research project developed and documented in the form of a thesis under the supervision of a graduate advisory committee. No more than 6 hours of thesis may be counted toward the degree. (every semester)

SOAA 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

SOAA 5989-99. Cooperative Education (variable credits) — Students must clear arrangements for this course through the Cooperative Education Office prior to registration. Businesses, industries, and government agencies provide opportunities for planned and supervised work assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received carries full academic value, and students may receive compensation as full-time employees. (every semester)

Courses Co-Listed in the Undergraduate Catalog

SOAA 5027. Advanced Principles of Sociology (3 credits) — *Prerequisite: Sociology 1020 or permission of instructor.* A consideration of the theoretical and research applications of sociological concepts. (fall)

SOAA 5087. The Family in Transition (3 credits) — *Prerequisite: Sociology 1020 or permission of instructor.* An analysis of the changing family with an emphasis on family theory. (variable)

SOAA 5157. Sociology of the City (3 credits) — *Prerequisite: Permission of the instructor.* The sociology of modern urban centers with emphasis upon the development, social organization, and social change that characterize this aspect of modern society, and the influence of urban patterns upon the total society. (variable)

SOAA 5257. Power, Wealth, and Poverty (3 credits) — *Prerequisite: Sociology 1020.* Examination of the theories and research concerning the distribution of power, wealth, and prestige in American society, and the impact of social class on life chances. (variable)

SOAA 5337. Social Psychology (3 credits) — *Prerequisite: Sociology 1020 or permission of instructor.* Study of social interaction, the development of self, and the social construction of reality. (fall)

SOAA 5357. Mass Communications and Popular Culture (3 credits) — *Prerequisite: Sociology 1020 or permission of instructor.* An examination of the impact of modern communications technology upon traditional lifestyles and world views, particularly entertainment during the 20th century. (variable)

SOAA 5507. Sociology of the Aging (3 credits) — *Prerequisite: Sociology 1020 or permission of the instructor.* An application of basic sociological principles, theories, and research findings to the understanding of the aging and their relationships with other segments of the population. (variable)

SOAA 5557. Population (3 credits) — *Prerequisite: Sociology 1020 or permission of instructor.* Major population characteristics, trends, and problems, primarily those of the United States. (variable)

SOAA 5627. Ethnographic Fieldwork Techniques (3 credits) — *Prerequisite: Sociology 1020 or permission of instructor.* An introduction to the information-gathering techniques and strategies employed by modern anthropologists, folklorists and qualitative sociologists, including interviewing, recording, photography, transcription, and analysis of fieldwork. Practical applications and contemporary social and cultural situations are also stressed. (spring)

SOAA 5807. Modern Social Theory (3 credits) — *Prerequisite: Sociology 1020 or permission of instructor.* This course provides a comprehensive survey of key modern social theorists and theories within the historical context of the emergence of the modern world order. (fall)

SOAA 5957. Special Topics in Sociology/ Anthropology (1-6 credits) — *Prerequisite: Dependent on subject matter.* Selected topics of current interest in sociology. Offered upon sufficient demand for specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment. (variable)

SOAA 5997. Current Issues in Appalachian Studies (3 credits) — *Prerequisite: Permission of instructor.* Seminar surveying major issues and concerns in Appalachian Studies since the 1970s. Required for Appalachian Studies minor. (variable)

Course Listings Social Work (SOWK) Courses for Graduate Students Only

SOWK 5101. Multicultural Practice (3 credits) — This course examines issues of human diversity. It is designed to provide students with a working knowledge and appreciation of human similarity and difference based on race, ethnicity, culture, class, gender, sexual orientation, religion, physical or mental ability, age and national origin. Patterns and consequences of discrimination, economic deprivation and oppression for populations at risk. Students will develop a sensitivity to diversity issues and a heightened awareness of their own feelings, attitudes and behaviors.

SOWK 5102. Human Behavior in the Social Environment I (3 credits) — Offered during the first semester and building on the liberal arts base, this course focuses on the reciprocal relationship between individuals and large groups, organizations, and community systems from an empirically based multi-theory and multi-system perspective. Also, the course examines the ways in which social systems promote or deter people in maintaining or achieving health and well-being. Issues of values, ethics, diversity, social and economic justice and populations at risk are infused throughout this course.

SOWK 5103. Social Work Practice Foundations (3 credits) — This course focuses on the strengths, capacities, and resources of large groups, organizations, and communities in relation to their broader environments. Students broaden their skills in implementing the generalist practice model. Content and skills include the following: assessing large systems using empirically based theory; applying empirical knowledge and technological advances; developing, analyzing, advocating, and providing leadership for policies and services through both worker and supervisory roles. Content on values, ethics, diversity, social and economic justice and populations at risk are infused throughout the course.

SOWK 5104. Social Welfare Policy and Services (3 credits) — As the first of three courses in the social welfare policy and services sequence, this course examines the historical roots, mission, and philosophy of social

welfare as an institution that responds to human needs and social problems, as well as the social, economic, and political forces that shaped and continue to shape social welfare. The course reviews the political processes for influencing policy formulation processes and improving social welfare services. Frameworks for analyzing policies and services are introduced to identify strengths, gaps, inadequacies, and inequalities in social programs and services. The course also explores how oppression, discrimination and social injustice issues impact at risk populations, especially at risk individuals and families of rural Appalachia.

SOWK 5106. Field Practicum I (4 credits) — Offered during the first semester with HBSE I and Practice I, this 200-clock-hour course focuses on the community and organizational context of practice and the application of knowledge, theory, and skills to practice with work groups, organizations, and communities.

SOWK 5202. Human Behavior in the Social Environment II (3 credits) — *Prerequisite: SOWK 5102.* Offered during the second semester this course builds on HBSE I. The course introduces the basic concepts of ecological systems theory as an umbrella for the generalist practice model. Focus is on a life-span approach to human growth, development and reciprocal interactions with an emphasis on individuals, families, and small groups from an empirically based multi-theory and multi-system perspective utilizing a bio-psycho-social paradigm, and the utilization of this knowledge in assessment and planning. Issues of values, ethics, diversity, social and economic justice and populations at risk are infused throughout this course.

SOWK 5203. Social Work Practice Foundations II (3 credits) — *Prerequisite: SOWK 5103.* This course is anchored in the purposes of the social work profession and focuses on the strengths, capacities, and resources of individuals, families and small groups in relation to their broader environments. Students learn to implement the generalist problem-solving model. Content and skills include the following: engaging clients in an appropriate working relationship; identifying issues, problems, needs resources and assets; collecting and assessing information using empirically based theory; planning for service delivery; using communication skills, supervision and consultation; identifying, analyzing and implementing empirically based interventions to achieve client goals; and evaluating practice effectiveness. Content on values, ethics, diversity, social and economic justice and populations at risk are infused throughout this course.

SOWK 5204. Social Welfare Policy Analysis (3 credits) — *Prerequisite: SOWK 5104.* As the second course in the policy sequence, this course reviews the theory, knowledge, research, values, and skills of social welfare policy and services analyses. Emphasis upon the processes and methods for understanding and analyzing social welfare policies/services at the local, state, and federal levels. Various welfare policy/services assumptions, socioeconomic political values, and analysis frameworks and research methodologies are examined. Also examined are the diverse organizational and political processes available for implementing/influencing welfare policies and services.

SOWK 5205. Social Work Research I (3 credits) — This foundation course is designed to provide students with an understanding of and appreciation for research methods and techniques used by social workers. The basic problem-solving process is presented and related to other social work methods. Program evaluation, use of single subject designs to evaluate personal practice, and standards for ethical behavior applicable to scientific inquiry are integral components of the course. Students will develop beginning skills in research and evaluation methods through the use of practical experiential applications and will learn how to critically evaluate research studies, to raise pertinent researchable questions, and to engage in systematic steps to find answers to these questions. Students complete literature review for their major research project.

SOWK 5206. Field Practicum II (4 credits) — *Prerequisite: SOWK 5314.* Offered currently with HBSE II and Practice II during the second semester, this 200-clock-hour course provides students with the opportunity to apply knowledge, theory, and practice skills with individuals, families, and small groups in community agencies.

SOWK 5208. Advanced Standing Bridge Course (3 credits) — This course is required for all advanced standing students and is designed to provide a conceptual orientation necessary for the concentration year graduate

program. The goal of this course is to refresh and enhance students' skills and knowledge generic to generalist social work practice, human behavior and the social environment (HBSE), research methods and literature reviews, and welfare policy analysis in preparation for advanced practice in the concentration areas of health, mental health, or children and family. Social and economic justice, social work values and ethics, populations-at-risk, and diversity are examined in relation to practice, HBSE, research, and policy.

SOWK 5266. Gerontological Social Work (3 credits) — This course will provide students with an approach to theories, concepts, and skills required to develop a methodology for social work practice with the elderly and their families. The continuum of support services and community resources will be explored. Students will explore interdisciplinary collaborations and ethical dilemmas, as well as critical thinking about an array of political, social, institutional, and personal issues affecting social work practice with the gerontological population.

SOWK 5303. Advanced Practice with Individuals (3 credits) — This course is designed to provide students with the ability to use assessment and intervention approaches and theoretical constructs in working with individuals. Content on diversity and populations at risk will be woven throughout the course. The focus will be on micro-level assessment and intervention skills for direct practice in intensive direct practice settings.

SOWK 5305. Social Work Research II (3 credits) — *Prerequisite: SOWK 5205 or Advanced Standing Status.* This advanced research course provides the opportunity for students to integrate traditional research methods and technology into practice that is relevant to the students's area of specialization. Students will revisit the quantitative research experientially as well as becoming involved in qualitative research as it applies to practice. Students will develop the methodology section of their major research project.

SOWK 5306. Advanced Field Practicum I (3 credits) — This concentration year practicum fosters development of advanced, integrated social work practice skills with individuals and families. It builds on the social work generalist perspective.

SOWK 5313. Advanced Practice with Families (3 credits) — This course provides students with the advanced social work practice knowledge and skills for ecological and clinical assessments and intervention and theoretical constructs for working with families. The importance of the therapeutic relationship will be emphasized throughout the course. The impact of diversity (culture, race, ethnicity, gender, age, disabilities, sexual orientation, etc.) on the development and application of theory is woven throughout the course.

SOWK 5323. Advanced Practice with Groups (3 credits) — This course extends the knowledge of foundation courses, SOWK 5103 and 5203 and extends that knowledge to include advanced practice assessment and intervention skills and theoretical concepts of working with groups, including therapeutic group factors, leadership issues, member roles and the development of groups. Content on diversity and populations at risk will be woven throughout the course.

SOWK 5324. Children and Family Policy (3 credits) — This advanced policy course provides students in the children and family specialization with an understanding of how society's sense of responsibility for the well-being of its children and families has become the basis for a vast body of public policy, enormous public expenditures, and extensive public debate. This course examines an array of child- and family-oriented policies in our society, with emphasis on child welfare policy and welfare reform. Through this course students will gain a snapshot of America's families in the wake of policy changes that are affecting how social services, health and income support programs are designed and administered.

SOWK 5403. Administrative Practices in Human Services Organizations (3 credits) — This course is intended to provide students with knowledge and application skills in organizational theory, administration, and resource development. This course will present theories of organizational development, maintenance, and communication, as well as professional, ethical, and effective functioning within organizational structures. Students will gain knowledge and build skills in the administrative, educational, and supportive functions of supervision. We will critically analyze social welfare organizations and rural community resource development. Special emphasis is placed on

the needs of diverse populations including women, Asian-American, African-American, Native Americans, Hispanics, citizens with disabilities, people who are gay or lesbian, and others who need support from members of the social work profession.

SOWK 5405. Social Work Research III (3 credits) — *Prerequisite: SOWK 5305.* The third course in the research sequence requires that students implement their research project on a topic within their concentration area. Skills include collecting and analyzing data, discussing findings and implications, completing a paper integrating the literature review and methodology sections from the previous research courses with this course, and making a presentation. The research project meets part of the graduate graduation requirements.

SOWK 5406. Field Practicum IV (1-9 credits) — The third 500-clock-hour advanced practice block practicum is offered during the fourth semester in a community setting consistent with the student's area of concentration.

SOWK 5430. Psychopathology in Social Work Practice (3 credits) — This required advanced practice course examines the nature and presenting characteristics of the major forms of mental and emotional maladjustment that may contribute to problems in social functioning, adaptation, and life satisfaction. It identifies specific categories of dysfunctional behavior, use of standard criteria, and treatments for dysfunctional behaviors from the social work perspective of a biopsychosocial paradigm. Informed and ethical assessment and service delivery for special populations is addressed.

Course Co-listed in Undergraduate Catalog

SOWK 5367. Seminar in Alcohol and Drug Abuse (3 credits) — This course provides the student with a basic understanding of alcohol and drug abuse. Various classifications of drugs, specific abuse symptomatology, specific causes of drug abuse, characteristics of high-risk groups, various treatment models, preventative efforts, and regulations controlling the use of drugs in society are examined. General systems theory provides the framework for looking at this societal problem and professional involvement with it. This course is offered at least one semester during the academic year.(variable)

SOWK 5467. Seminar in School Social Work (3 credits) — This course explores policies, practices, historical developments, and legislative trends affecting social work services in schools. School-community relationships and the impact of societal attitudes upon schools are examined. It also provides an opportunity for students to develop an understanding of theory and practice of social work in schools. Special emphasis is placed on the theory and practice expressed by the Tennessee Department of Education's "Minimum Competency Requirements-School Social Workers K-12," "Criteria for the Evaluation of School Social Workers," and NASW Standards of Social Work Services in Schools. This course is offered to social work majors only and is taught each semester of the academic year.(variable)

SOWK 5517. Crisis Intervention (3 credits) — This course explores the various types of crises and approaches to crisis intervention relative to professional practice utilizing general systems theory as the basic underlying framework. Students engage in role play simulations, and games to develop beginning professional skills needed to work with individuals, families, groups, and communities in crisis. This course is offered both semesters of the academic year. (variable)

SOWK 5567. Human Sexuality (3 credits) — This course provides the student with an initial understanding of human sexuality, sexual dysfunction, treatment modalities and resources, preventive programs, and sex education. It introduces students to changing sexual norms, values, and behavior found among the majority and ethnic and special groups. It also introduces the student to how sexual behavior is learned and developed, i.e., psychosocial development and cultural impact. In addition, students are provided the opportunity for values clarification and exploration of personal and social attitudes toward varying forms of sexual behavior and orientation. Students are encouraged to feel more comfortable and to accept the appropriateness of their professional involvement in this area. This course is offered at least one semester during the academic year.(variable)

SOWK 5957. Special Topics in Social Work (3-6 credits) — Graduate students, after consultation with the instructor, will be permitted to enroll in some topics. Topics selected relate to fields of practice or current issues in the profession. Two three-credit courses may be taken on different topics. This course is offered both semesters of the academic year. (variable)

Spanish Course Listing (SPAN) Courses for Graduate Students Only

SPAN 5003. Colonial Literature (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of the development of literature in Spanish-America during the 16th, 17th, and 18th centuries.

SPAN 5103. Contemporary Spanish Novel (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* Major works of the post-Civil War Spanish novel.

SPAN 5203. Contemporary Spanish-American Novel (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* Major works of the Spanish-American novel since World War II.

SPAN 5303. Contemporary Spanish Theatre (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of the major dramatic works of post-Civil War Spain.

SPAN 5403. Contemporary Spanish-American Theatre (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of the major authors and dramatic works in Spanish-America since World War II.

SPAN 5903. Special Studies in Spanish (1-6 credits) — *Prerequisite: Spanish 2020 or equivalent.* Designed to provide opportunities for study in areas not provided for in the regular course offerings for graduates. Students desiring to enroll should obtain permission from the instructor.

Courses Co-Listed in Undergraduate Catalog

SPAN 5007. Golden Age Drama (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of the origin of the Spanish theatre through the 17th century, with particular emphasis on Lope de Vega, Tirso de Molina, Juan Ruiz de Alarcón, Calderón de la Barca, and Francisco de Rojas Zorrilla.

SPAN 5017. Advanced Spanish Grammar I (3 credits) — *Prerequisites: SPAN 2020 or equivalent.* A study of complex grammatical aspects of the language such as *ser* vs. *estar*, preterite vs. imperfect, and the subjunctive.

SPAN 5027. Advanced Spanish Grammar II (3 credits) — *Prerequisites: SPAN 2020 or equivalent.* A study of complex grammatical aspects of the language such as the subjunctive in adverbial clauses, prepositions, placement of descriptive adjectives, pronouns, verbs used reflexively, and the passive voice.

SPAN 5107. Cervantes (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of the representative works of Miguel de Cervantes Saavedra, with special emphasis on the *Quijote*.

SPAN 5117. Hispanic Cinema (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of cinematic works from Latin America and Spain within the context of Hispanic literature and culture.

SPAN 5127. Introduction to the Spanish-Speaking Community (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* This is a community-based course which provides students with knowledge and skills to effectively interact with members of Spanish-speaking communities in both social and professional contexts. This course teaches cultural competence and diversity through an interdisciplinary approach involving students and faculty in the promotion of cordial, supportive, and effective relationships between Spanish-speaking and English-speaking community members. Students complete substantial field experience in Spanish-speaking communities.

SPAN 5137. Translation and Community Outreach (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* This course teaches basic translation skills through an interdisciplinary approach involving students and faculty in the promotion of cordial, supportive, and effective relationships between Spanish-speaking and English-speaking community members. This course includes a number of projects in the community.

SPAN 5147. Interpretation and Community Outreach (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* This course teaches basic interpretation skills through an interdisciplinary approach involving students

and faculty in the promotion of cordial, supportive, and effective relations between Spanish-speaking and English-speaking community members. This course includes a number of projects in the community.

SPAN 5207. 19th Century Spanish Literature (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* Selected works by the principal 19th-century novelists and dramatists of Spain.

SPAN 5307. The Generation of '98 (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* The origin, development, and influence of this early 20th-century renaissance of Spanish letters, with attention given to the most representative poets, dramatists, and novelists of the period.

SPAN 5407. 20th Century Spanish Literature (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* Selected works by the principal 20th-century novelists and dramatists of Spain.

SPAN 5507. Spanish Short Story (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* Spanish and Spanish-American short stories from the 19th and 20th centuries.

SPAN 5607. Modernist Movement in Spanish America (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of Rubén Darío, his contemporaries, and followers.

SPAN 5707. Spanish-American Theatre (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* Selected works of the principal 19th- and 20th-century dramatists of Spanish America.

SPAN 5737. Art at the Prado Museum (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* A study of the major schools of painting at the Prado, with emphasis on the Spanish artists.

SPAN 5807. Spanish-American Novel (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* Selected works by the principal novelists of Spanish America.

SPAN 5957. Topics in Spanish (3 credits) — *Prerequisite: Spanish 2020 or equivalent.* This course gives students an opportunity to study special problems and new developments in the field of Spanish.

Speech Course Listing (SPCH) Courses for Graduate Students Only

SPCH 5330. Applied Communication Theory (3 credits) — The study of traditional, modern, and emerging communication theories as analytical tools to understand how communication operates in a variety of settings.

SPCH 5900. Independent Study in Speech Communication (1-3 credits)

SPCH 5950. Communication Research Methods (3 credits)

SPCH 5960. Thesis (1-6 credits) — *Prerequisite:* Consent of instructor. A research project developed and written under the supervision of a faculty committee.

SPCH 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-listed in Undergraduate Catalog

SPCH 5317. Rhetoric and Public Address (3 credits) — Historical study of rhetorical theory as applied to manuscripts, speakers, and audiences.

SPCH 5357. Communication in Organizations (3 credits) — A study of communication needs, problems, and practices within various organizations.

SPCH/PUBH 5377. Health Communications (3 credits) — A study of the interpersonal, group, organizational, and public communication

processes that shape beliefs, decisions and behavior regarding health, sickness, and health care. The course examines the attitudes and actions of many participants in health communication, including citizens, health professionals, and those engaged in public debate about health care issues. (Students cannot receive credit for both SPCH 5377 and PUBH 5377.)

SPCH 5607. Speech Practicum (3 credits, repeatable) — *Prerequisite. Permission of instructor.* May be repeated. A practical study experience with appropriate supportive research.

SPCH 5957. Special Topics in Speech (2-6 credits)

Special Education Course Listing (SPED) Courses for Graduate Students Only

SPED 5001. Critical Issues in Special Education (3 credits) —

This weekly three credits of lecture are intended to coordinate and integrate information from corresponding student reading of research with lectures that identify historically significant events and the current issues that confront the field of special education. The intent is to provide students with experiences in the identification of program and service issues, societal issues, and policy issues in response to the process of delivering special education efforts to persons with disabilities. Students will identify those professional issues that are of immediate concern, through trend and meta-analysis, demographic descriptions and statistical demography projects. Students will convert a major issue into research questions. Students will attempt a pilot effort to test the tenability or research questions, reporting their results to their peer audience for critical review.

SPED 5010. Introduction to Young Special Needs Children and Their Families (3 credits) — This course will cover the various characteristics of young special needs children and their families, across and within classifications. Particular emphasis will focus on how these traits impact on the child's developmental rate, abilities, and sequence. Some intervention strategies will be covered. A nine-credit field experience in an early childhood program will be required.

SPED 5030. Intervention with Developmentally Delayed Preschoolers (4 credits) — This course will examine developmental considerations and intervention strategies to promote optimal development of developmentally delayed and at risk children from ages three to 6 years. Public law 94-142, various service delivery models intervention techniques and procedures, curriculum and individualized educational programs will be explored. Particular emphasis will be placed on the role of the interdisciplinary team, integration and mainstreaming. Fifteen credits of field experience in preschool programs will be required.

SPED 5040. Intervention with Developmentally Delayed Infants and Toddlers (4 credits) — This course will examine intervention strategies to promote optimal development for developmentally delayed and at risk children birth to age 3. Public law 99-457, various service delivery models, intervention techniques and procedures, curriculum and individualized family service programs will be explored. Particular emphasis will be placed on the role of the primary caretaker as major change agent for the child. Fifteen credits of field experience in infant/toddler program will be required.

SPED 5050. Assessment of Young Children (3 credits) — This course is designed to develop student's familiarity with a wide variety of assessment techniques and instruments. Students are required to learn and practice administration of selected instruments. Instruments used by students include some curriculum-based instruments, observation and data collection methods, evaluations of preschool and infant/toddler environments, family interviewing techniques. Students complete several screening and assessment projects that help them to gain these skills. In addition, issues related to the assessment of young children, children with disabilities and children from different cultural backgrounds are discussed.

SPED 5060. Professional Seminar in Early Intervention (1 credit) — This course is a compilation of two-credit seminars on different current issues in early childhood special education. Each presentation is done by a different professor with interests in the specific issue to be covered. Professors participating come from a variety of different fields related to early childhood special education. Different professors may require readings or short projects.

SPED 5250. Special Education Workshop (1-3 credits) — Special workshops covering various types of exceptionality.

SPED 5365. Integrating Functional Skills into the Curriculum (3 credits) — This course is designed to provide the theoretical and research basis for curriculum approaches and strategies that will enable the student to design, implement, and monitor functional and age-appropriate programs for children and youth with moderate and severe disabilities in both school and community-based settings. Course content is to include domestic living, community mobility and social instruction, and advocacy to accommodate a viable transition toward independent adult living.

SPED 5410. Preclinical Experience: Behavior Management (1 credit) — *Co-requisite. SPED 5725.* Preclinical experience in special education is a supervised opportunity for students to gain experience in the classroom and other settings which provide direct instruction to children and youth with disabilities. The student will work with the classroom teacher to target classroom behavior problems and develop, implement, and evaluate the effects of interventions for that behavior. Students will also implement a functional analysis project for a specific child's behavior.

SPED 5445. Incorporating Assistive Technology into the Curriculum (3 credits) — This course provides an in-depth examination of assistive technology for individuals with disabilities as it relates to teaching and learning in special education. Emphasis will be placed upon the research basis for using assistive technology with students with special needs. Students will learn avenues to monitor new developments within the field. New applications of existing and developing technology will be explored. Laboratory work with microcomputer technology will be required.

SPED 5500. History, Issues and Trends in Educating Exceptional Learners (3 credits) — This course supports the goals of the College of Education and the Special Education Program by preparing educators to become leaders in the 21st century. This course assists students in acquiring the knowledge and skills needed to function well as an educator in a changing and diverse society; and understanding of learners and learning processes; a knowledge of professional, ethical, and legal issues affecting educators; and the human relations skills needed to work effectively with individuals with disabilities in both professional and community roles.

SPED 5560. Advanced Practicum in Special Education (3 credits) — Trainees enrolled in SPED 5560 spend ninety (90) hours, in a supervised practicum experience working with children who have disabilities. Each student has a university practicum supervisor and is placed in a setting with an onsite supervisor identified. Settings for trainees vary with the student's interests and could include preschool special education classes, early intervention programs, local school system special education or integrated classrooms, or transitional settings. This course is used for students electing a NON-CERTIFICATION option.

SPED 5700. Instructional Techniques for the Inclusive Classroom (3 credits) — This course is designed to provide the student with skills needed to interpret curriculum guidelines and develop goals and objectives for students with disabilities of all grade levels to function in the least restrictive environment. Emphasis will be placed upon research proven strategies and teaching techniques appropriate for the inclusive classroom. Students will develop the ability to implement strategies and teaching techniques based upon empirical research. In addition, students will develop the ability to select and adapt strategies and materials appropriate to learning styles of students with disabilities or students identified as being at risk for future learning problems. Research-based approaches to teaching mathematics and written and oral language will be covered.

SPED 5725. Management Strategies for Severe Behaviors (3 credits) — *Co-requisite. SPED 5410: Preclinical Experience: Behavior Management.* This course will provide students with the research and theoretical basis of applied behavior analysis. Students will be instructed in management strategies related to persons with disabilities who demonstrate severe challenging behaviors. Emphasis will be given to functional assessment to enable students to complete a functional behavioral assessment of a student or adult with a challenging behavior. This course will include instruction in ecological assessment, databased decision making, and instructional strategies that can be used to develop interventions for children and youth with severe behavior disorders.

SPED 5750. Transition to Adult Life and the World of Work (3 credits) — This course is designed to provide the student with the legal, theoretical and research basis for transition programs. Students will develop skills to implement secondary programs for youths and young adults with mild, moderate, or severe disabilities to ensure successful transitions to adult life roles, including vocational, daily living, community, and social-personal. Topics to be covered include: characteristics and needs of youths with disabilities; laws and the historical basis for services; individualized transition planning and services; vocational, academic, and career planning and assessments, career and vocational education; job experiences; employability skills; family involvement; student advocacy and self-determination, collaboration with adult agencies and businesses; post-secondary education and training; and special topics, such as inclusive and community-based programs.

SPED 5825. Preclinical Experience in Curriculum (1 credit) — Preclinical experience in special education is a supervised opportunity for students to gain experience in the classroom and other settings which provide direct instruction to children and youth with disabilities. Curriculum instructional strategies and effective practices will be practiced. Thirty hours of fieldwork is required.

SPED 5850. Clinical Experience in Special Education (6 credits) — Clinical Experience in Special Education is a prearranged, supervised student teaching experience in a special education setting for one semester for 6 semester hours of credit, leading to licensure in modified and/or comprehensive special education. Over the course of the semester, the students will increase their roles in the classroom, culminating in assuming the role and responsibilities of a fully functioning special educator. Written plans, journal and students teaching portfolio will be developed and maintained. Placements will be made within a 45-minute radius of ETSU main campus.

Co-listed undergraduate/graduate courses

SPED 5237. Educating Persons with Learning Disabilities (3 credits) — This course addresses the process of assessing, designing, and delivering instruction to students with learning disabilities. Philosophical and practical perspectives will be integrated into a supportive framework of best practices that encompasses both diagnosis and intervention. The latest research findings and most current practices in identifying and providing instruction to students with learning disabilities are incorporated. In addition, students are presented with information regarding specific academic and social areas needed for instruction.

SPED 5347. Vocational Preparation for Individuals with Disabilities (3 credits) — *Prerequisite: SPED 3320.* The course is designed to provide the student with skills to implement a transition program for school to career and daily living for individuals with disabilities, regardless of category of disability and age considerations. Areas covered include vocational/career assessment, design and implementation of programs utilizing family, agencies, and the business and industrial community.

SPED 5427. Educating Persons who are Gifted (3 credits) — This course provides an in-depth examination of the special needs of children who are gifted and talented. Topics also include definitions and characteristics of gifted and talented, content modifications for the gifted, and information processing strategies.

SPED 5477. Special Education Assessment (3 credits) — This is a lecture-based course covering both formal, informal, curriculum based diagnostic and assessment instruments. Their usefulness and non-usefulness will be covered. Students will have experience in the administration and scoring of at least one nationally norm-referenced test. Students will complete one case study.

SPED 5487. Collaboration with Families, Agencies and Schools (3 credits) — This course is designed to introduce students to the principles, problems and procedures of working in collaboration with parents of individuals with disabilities as well as with agencies and professional organizations involved in the delivery of services to persons with disabilities. The course provides an overview of different approaches, current issues, and problems involved in working in collaboration with families and multiple agencies. Emphasis is placed on serving as a member of a professional team, interviewing and consulting with teachers and parents, and providing leadership in instruction and instructional adaptation.

SPED 5497. Curriculum in Special Education (3 credits) — This course provides information on effective curriculum and instructional approaches used to help students with mild disabilities achieve mastery and proficiency in academic skills. Research-based approaches to teaching students with mild disabilities in the areas of reading, content area instruction, and study skills will be covered.

SPED 5627. Educating Persons with Mental Retardation (3 credits) — This course discusses a variety of topics related to the field of mental retardation. Specific topics include the following: types, nature, and causes of mental retardation; characteristics of persons with mental retardation; assessment and identification procedures; and instructional strategies relating to the education of persons with mental retardation. Field experience is required.

SPED 5757. Curriculum-Based Assessment (3 credits) — This course is designed to help students acquire assessment skills needed to make instructional decisions, monitor progress and promote successful participation in the general education and special education curricula. Classroom-based methods of curriculum, learning, performance, and behavioral assessments will be presented; including data collection, designing and implementing interventions making curricular adaptations, and using data to make instructional decisions.

SPED 5957. Topics in Special Education (1-6 credits)

Surveying and Mapping Course Listing (SURV) Courses for Graduate Students Only

SURV 5110. Physical Geodesy (3 credits) — *Prerequisites: MATH 1920, SURV 3560 or permission of instructor.* Fundamentals of the physical environment influences on geometry used in surveying and geodesy; Considers gravity, earth rotation, polar wandering, equipotential surfaces, geoid models, ellipsoidal heights, orthometric heights, GPS elevations, Fast Fourier Analysis, meeting published measurement standards and related subjects. Lecture and laboratory.

Co-listed undergraduate/graduate courses

SURV 5517. Photogrammetry (4 credits) — *Prerequisites: SURV 3510, and 3520, or permission of instructor.* Use of aerial photographs for mapping; geometry of single photo and stereographic models; scale and relief displacement; vertical and tilted photos; parallax; photo mosaics; ground control; stereoplotters; resection; orthophotos; oblique photos; remote sensing. Lecture and laboratory.

SURV 5537. Land Boundary Location (4 credits) — *Prerequisites: SURV 3510 and 3520 or three years experience in surveying or in real estate.* Role of the surveyor in retracing land boundaries; methods of boundary establishment; classification and analysis of boundary evidence; laws governing riparian boundaries; preparing deed descriptions and survey plats; preservation of survey evidence; surveyor as expert witness; ethics, liability, and professionalism in surveying. Lecture and laboratory.

SURV 5547. Land Subdivision and Platting (4 credits) — *Prerequisite: SURV 3510, 3520, and 4530 or permission of instructor.* Physical elements of designing land subdivisions including circulation systems, sewer systems, drainage systems, soils and earthwork grading considerations, erosion control, lot and block arrangement, topography and existing land use factors, geometric analysis procedures, presentations to city planning and zoning boards.

SURV 5567. Positioning with GPS (3 credits) — *Prerequisite: SURV 3560 or permission of instructor.* A course designed to utilize GPS for data collection and post-processing, methods for adjusting networks, explore the reliability of networks, use of continuously operating reference systems (CORS), geometry of satellite constellation, vector processing strategies, the effects of atmospheric constraints on long baselines, utilization of on-the-fly technology, precise ephemeris generation, and differential corrections.

SURV 5617. Digital Imagery Processing (3 credits) — *Prerequisite: MATH 1920, SURV 4517/5517, GEOG 4237 or permission of instructor.* Use of software to analyze, enhance and display satellite images from many sources. Project based course to determine needs for land use planning, environmental preservation and sustainable development. Presentations to local planning departments and other interested parties.

Theatre Course Listing (THEA) Courses for Graduate Students Only

THEA 5960. Thesis (3-6 credits) — *Prerequisite: Consent of instructor.* A research project developed and written under the supervision of a faculty committee.

THEA 5990. Readings and Research (1-3 credits) — Students who are not enrolled in other coursework but require the use of university facilities and/or faculty guidance for studies, research, or preparation of a prospectus MUST enroll for Readings and Research. Variable credits (1-3) of Readings and Research may also be used, as approved by student's advisory committee in conjunction with other coursework, to document such activities as development of research and scholarly skills that would not be appropriately covered by other types of independent study. Readings and Research credits do not count toward degree requirements. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Courses Co-Listed in Undergraduate Catalog

THEA 5417. Teaching Theatre in Grades K-12 (3 credits) — A study of methods and materials for teaching theatre in elementary and secondary schools.

THEA 5527. Advanced Scenographic Design (3 credits, repeatable) — *Prerequisites: THEA 2520, 3330, 3335.* May be repeated under each of the following: areas scenery, lighting, costuming. The study of advanced theatrical design principles and appropriate play analysis.

THEA 5537. Advanced Play Direction (3 credits) — *Prerequisite: THEA 3530.* The planning of an actual production for performance for practical development of the fundamentals, methods, and procedures of play direction.

THEA 5547. Dramatic Theory and Criticism (3 credits) — *Prerequisite: THEA 1500.* A study of the critical writings on the theory of dramatic form from Aristotle to the present with an understanding of philosophical and social foundations as they relate to theatrical standards of dramatic art.

THEA 5557. Playwriting (3 credits) — *Prerequisite: THEA 2530.* A study of the organization of the parts of a play in dramas of different styles and types followed by exercises in writing dramatic exposition, characterization, and plot development for the foundation of an original play.

THEA 5607. Theatre Practicum (1 credit) — *Prerequisite: Permission of instructor through audition.* May be repeated. For juniors, seniors, and graduate students only. Participation as a performer or stage manager in planning, rehearsal, and performance of an ETSU Theatre Production under faculty direction.

THEA 5637. Theatre Management (3 credits) — Procedures used on stage, house, and business management of a theatre operation.

THEA 5647. Theatre Architecture and Design (3 credits) — *Prerequisite: THEA 2520 and THEA 3330 or permission of instructor.* This course will survey the changes in theatre architecture from the 5th century B.C. to the present. Students in this course will learn about modern facility design practices and about federal and state laws that affect the design of both new facilities and renovation of existing facilities.

THEA 5707. Theatre Internship (3-9 credits) — *Prerequisite: Permission of department chair and concurrence of host theatre.* Experience in professional non-academic theatre under supervision of professional staff. Interns may work in a single area of specialty or in rotation throughout host theatre's operation and may contract for single term or academic year.

THEA 5857. Period Acting Styles (3 credits) — *Prerequisite: THEA 3510.* Acting Styles from ancient Greece through Restoration, utilizing language, research, scene work, movement, and masks.

THEA 5867. Summer Theatre Performance (3 credits) — *Prerequisite: Permission of instructor through audition.* Participation in rehearsals and performance of an ETSU Summer Theatre production under faculty or guest artist direction.

THEA 5957. Special Topics in Theatre (2-6 credits)

Urban Studies Course Listing (URBS) Courses for Graduate Students Only

URBS 5020. Urban Planning Theory (3 credits) — The course provides the beginning planning student with exposure to classic readings in 13 planning subfields in which the students are expected to expand their knowledge base.

Courses Co-Listed in the Undergraduate Catalog

URBS 5087. Recreation and Tourism Planning (3 credits) — A survey of recreation and tourism in the United States and their impact on regional economic planning and development.

URBS/GEOG 5107. Urban Geography and Planning (3 credits) — A geographical analysis of cities and urban regions. The course emphasizes urban growth patterns, location and interaction, analysis, planning for urban regions, and travel. (Same as GEOG 5107).

URBS 5347. Economic Development Planning (3 credits) — An introduction to the complexities of local economic development planning. Useful for students wishing to become economic or planning specialists and for community leaders interested in creating development strategies.

URBS 5637. Local and Regional Planning (3 credits) — Theories and techniques of planning for small cities, metropolitan areas, and geographic regions.

Faculty Listing

COLLEGE OF ARTS AND SCIENCES

- al-Imad, Leila (1987) Associate Professor** History
B.A., 1970, Beirut College for Women, Beirut, Lebanon;
B.A., 1973, American University of Beirut;
Ph.D., 1986, New York University.
- Alsop, Fred J. (1972) Professor** Biological Sciences
B.S., 1964, Austin Peay State University;
M.S., 1968 and Ph.D., 1972, University of Tennessee.
ETSU Distinguished Faculty Member, 1976.
- Anderson, Eugene D. (1972) Senior Affiliate Faculty** Social Work
B.A., 1959, Mercer University;
M.S.W., 1961, Tulane University;
Ph.D., 1972, University of North Carolina, Greensboro.
- Antkiewicz, Henry J. (1988) Professor** History
B.A., 1963 and M.A., 1967, University of Michigan;
Ph.D., 1976, Ohio State University.
- Ayers, James (2001) Professor** Social Work
A.A., 1971, Southwestern College California;
B.S.W., 1973, California State University;
M.S.S.W., 1975, San Diego State University;
D.S.W., 1990, University of Utah.
- Baggett, Paul (2002) Associate Professor** Chair, Social Work
B.S.S.W., 1981, Lock Haven University;
M.S.W., 1983, University of Georgia;
Ph.D., 1994, University of Tennessee-Knoxville.
- Bailey, Roger C. (1973) Professor** Psychology
B.A., 1964, Concord College;
M.A., 1966, West Virginia University;
Ph.D., 1973, Oklahoma State University.
- Baxter, Colin F. (1971) Professor** Chair, History
B.S., 1961, East Tennessee State University;
M.A., 1963 and Ph.D., 1965, University of Georgia.
Distinguished Faculty Award, 1995.
- Beck, Scott H. (1984) Professor** Sociology and Anthropology
B.A., 1976, Florida International University;
M.S., 1977, Florida State University;
Ph.D., 1981, University of Florida.
- Blackman, Mary Dave (1997) Associate Professor** Chair, Music
B.A., 1978 and M.M.Ed., 1984, University of South Carolina;
Ph.D., 1989, University of Texas-Austin.
- Blaustein, Richard J. (1970) Professor** Sociology and Anthropology
Coordinator, Appalachian Studies Minor
B.A., 1966, Brooklyn College;
M.A., 1969 and Ph.D., 1975, Indiana University.
- Boland, James W. (1992) Professor** Mathematics
B.S., 1981, Worcester Polytechnic Institute;
M.S., 1987, University of Central Florida;
Ph.D., 1991, Clemson University.
Distinguished Faculty Award, 1996.
- Branscomb, Ernest J., Jr. (1972) Senior Affiliate Faculty** English
A.B., 1965, Duke University;
M.A., 1967 and Ph.D., 1972, University of North Carolina.
Distinguished Faculty Award, 1997.
- Braswell, Michael C. (1977) Professor** Criminal Justice and Criminology
B.A., 1969, Mercer University;
M.A., 1970, West Georgia College;
Ed.S., 1973, University of Georgia;
Ph.D., 1975, University of Southern Mississippi.
ETSU Distinguished Faculty Award, 2003.
- Brewster, Karen (2000) Assistant Professor** Communication
B.A., 1973, East Tennessee State University;
M.F.A., 1982, Michigan State University.
- Brown, Danny Anderson (1984) Professor** Communication
Associate Dean, College of Arts and Sciences
B.S., 1969, North Carolina State University;
M.A.E., 1975, Western Carolina University;
Ph.D., 1982, University of Massachusetts.
- Brown, Russell W. (2000) Assistant Professor** Psychology
B.S., 1992, University of Oklahoma;
M.S., 1995 and Ph.D., 1998, University of Kentucky.
- Brown, Stephen E. (1979) Professor** Criminal Justice and Criminology
B.A., 1973 and M.S., 1975, Eastern Kentucky University;
Ph.D., 1979, University of Maryland.
- Burgess, William Douglas Jr. (1986) Professor** History
A.A., 1968, Florida College;
B.A., 1972 and M.A., 1975, University of South Florida;
Ph.D., 1985, University of Wisconsin.
- Burnley, Cynthia S. (1969) Associate Professor** Sociology and Anthropology
Director, Outcomes Assessment
B.S., 1968, Tennessee Technological University;
M.A., 1970 and Ph.D., 1979, University of Tennessee.
- Cantrell, Peggy J. (1982) Professor** Psychology
B.S., 1976, Virginia Commonwealth University;
M.A., 1979 and Ph.D., 1982, University of Southern Mississippi.
- Cavender, Anthony (1988) Professor** Sociology and Anthropology
B.A., 1971, Belmont College;
M.A., 1974 and Ph.D., 1981, University of Tennessee.
- Chen, Weixing (1995) Professor** Political Science
B.A., 1982, Shandong University, China;
M.A., 1986, College of International Relations, China;
Ph.D., 1992, Northern Illinois University.
ETSU Distinguished Faculty Award, 2003.
- Close, David M. (1978) Professor** Chair, Physics, Astronomy, and Geology
A.B., 1964, Franklin and Marshall College;
M.S., 1967, West Virginia University;
Ph.D., 1973, Clark University.
ETSU Foundation Research Award, 1988.
- Cody, Michael A. (2001) Assistant Professor** English
B.A., 1993, University of North Carolina-Asheville;
M.A., 1995, Western Carolina University;
Ph.D., 2000, University of South Carolina.
- Copp, Martha (1993) Associate Professor** Chair, Sociology and Anthropology
B.S., 1984, Texas A&M University;
M.A., 1987 and Ph.D., 1993, University of North Carolina.
- Cronin, Patrick J. (2001) Associate Professor** Communication
Artist in Residence
B.A., 1963, LaSalle University;
M.S., 1968, Temple University.
- Dalton, Bruce O. (2003) Assistant Professor** Social Work
B.A., 1982, University of Michigan-Flint;
M.S.W., 1988, University of Michigan;
Ph.D., 1995, Rutgers University.
- Davidson, Tammy A. (1998) Assistant Professor** Chemistry
B.S., 1992, Denison University;
Ph.D., 1997, University of Florida.
- Davis, Don (2000) Associate Professor** Art and Design
B.F.A., 1972, University of Florida;
M.F.A., 1974, Rhode Island School of Design.
- Day, Ronnie M. (1968) Professor** History
B.A., 1963, Cumberland College;
M.A., 1965 and Ph.D., 1971, Texas Christian University.
- Deadman, Alison P. (1998) Assistant Professor** Music
B.A., 1986 and M.Phil., 1990, Leeds University;
M.A., 1992, California State University, Fresno;
Ph.D., 1998, University of California, Los Angeles
- DeAngelis, Anita M. (1994) Associate Professor** Art and Design
B.F.A., 1981, University of Texas-Austin;
M.F.A., 1986, Arizona State University.
- Dixon, David (1989) Associate Professor** Art and Design
B.A., 1976 and M.F.A., 1984, University of Tennessee.
- Dixon, Jr., Wallace E. (2002) Associate Professor** Chair, Psychology
B.A., 1985, University of Toledo;
M.A., 1987 and Ph.D., 1990, Miami University.
- Dorgan, Kelly (2003) Assistant Professor** Communication
B.S., 1990, Appalachian State University;
M.A., 1991, University of Kentucky;
Ph.D., 2001, University of Georgia.

- Drinkard-Hawkshawe, Dorothy (1989) Professor** History
B.A., 1960 and M.A., 1963, Howard University;
Ph.D., 1974, Catholic University of America.
- Dyer, M. Wayne (1983) Professor** Art and Design
B.S., 1973, Madison College;
M.F.A., 1983, Radford University.
- Elhindi, Yousif A. (1998) Associate Professor** English
B.A., 1975, University of Khartoum;
M.A., 1981, University of Sheffield;
Ph.D., 1995, Oklahoma State University.
- Ellis, Jon B. (1989) Professor** Psychology
B.S., 1973, Virginia Polytechnic Institute and State University;
M.S., 1981, Radford University;
Ph.D., 1989, University of Southern Mississippi.
- Essin, Emmett M. (1967) Professor** History
Director, Developmental Studies
A.B., 1964, Austin College;
M.A., 1965 and Ph.D., 1968, Texas Christian University.
ETSU Distinguished Faculty Member, 1976.
- Fritz, Stephen G. (1984) Professor** History
B.A., 1971, M.A., 1973 and Ph.D., 1980, University of Illinois.
Distinguished Faculty Award, 1996.
- Funk, Robert David (1998) Associate Professor** Communication
B.S., 1976, Western Carolina University;
M.F.A., 1984, University of North Carolina-Greensboro.
- Gardner, Robert B. (1993) Professor** Mathematics
B.S., 1984, M.S., 1987, M.S., 1992 and Ph.D., 1991, Auburn University.
ETSU Distinguished Faculty Award 1998.
- Gerard, Mira (2001) Assistant Professor** Art and Design
B.F.A., 1991, Indiana University;
M.F.A., 2001 University of Georgia.
- Gillespie, Wayne (2001) Assistant Professor** Criminal Justice and Criminology
B.A., 1993, College of William and Mary;
M.A., 1998, East Tennessee State University;
Ph.D., 2001, University of Kentucky.
- Godbole, Anant (2000)** Chair, Mathematics
B.Sc., 1975, Bombay University, India;
M.S., 1980 and Ph.D., 1984, Michigan State University.
- Gold, Jeffrey B. (1978) Professor** Philosophy and Humanities
B.A., 1973, University of Wisconsin;
M.A., 1975 and Ph.D., 1978, Ohio State University.
- Goyal, Arun (2003) Assistant Professor** Biological Sciences
B.S., 1977, Kumaon University, India;
M.S., 1981, G.B. Pant University, India;
Ph.D., 1987, Wollongong University, Australia.
- Gross, Steven (2001) Assistant Professor** English
B.A., 1976, University of Utah;
M.A., 1996 and Ph.D., 2000, University of South Carolina.
- Grover, Kathleen H. (1976) Assistant Professor** English
B.A., 1964, Florida State University;
M.A., 1967-Memphis State University.
- Hall, Delbert L. (1986) Professor** Communication
B.S., 1977, Western Carolina University;
M.F.A., 1981, University of North Carolina-Greensboro;
Ph.D., 1986, University of Florida.
- Hall, Ken (1999) Professor** Chair, Foreign Languages
B.A., 1975, Furman University;
M.A., 1978, University of North Carolina-Chapel Hill;
Ph.D., 1986, University of Arizona.
- Halvorson, Helene K. (2003) Associate Professor** Social Work
M.S.W. Director
Ph.B., 1969, University of North Dakota, Grand Forks;
M.S.W., 1976, Barry University, Miami Shores, Florida;
Ph.D., 1999, University of Tennessee-Knoxville.
- Hamm, Dennis G., Jr. (1998) Instructor** .. Criminal Justice and Criminology
B.S., 1967, East Tennessee State University;
M.Div., 1970, Southern Seminary;
M.Ed., 1978, University of Virginia;
D.Mn., 1980, Union Seminary in Virginia.
- Hammond, Judith A. (1975) Professor** Sociology and Anthropology
Assistant Vice President for Community Outreach and Family Services
A.A., 1970, St. Petersburg Junior College;
B.S., 1972, M.A., 1973 and Ph.D., 1975, Florida State University.
- Harrington, Karen A. (1986) Associate Professor** Foreign Languages
B.A., 1973 and M.A., 1978, California State University Northridge;
Ph.D., 1986, University of California, Los Angeles.
- Harris, Styron (1971) Senior Affiliate Faculty** English
B.A., 1958, Wake Forest University;
M.A., 1963 and Ph.D., 1971, Duke University.
- Hayes, Tammy (1994) Assistant Professor** Communication
B.S., 1987; M.A., 1998, East Tennessee State University;
M.S., 1988, Indiana State University.
- Haynes, Teresa (1988) Professor** Mathematics
B.S., 1975 and M.S., 1984, Eastern Kentucky University;
Ph.D., 1988, University of Central Florida.
- Headley, Thomas F. (1969) Associate Professor** Communication
B.S., 1968 and M.S., 1969, Indiana State University.
- Henson, Gary D. (1989) Assistant Professor** Physics, Astronomy, and Geology
B.S., 1979, University of Central Arizona;
M.S., 1982, University of New Mexico;
Ph.D., 1989, University of Oregon.
- Herrin, Roberta T. (1976) Professor** English
Director, Center for Appalachian Studies and Services
B.S., 1970 and M.A., 1972, East Tennessee State University;
Ph.D., 1986, University of Tennessee.
- Hester, Wendell H. (1975) Associate Professor** Sociology and Anthropology
A.B., 1965, University of Miami;
M.A., 1967 and Ph.D., 1973, Emory University.
- Hillhouse, Joel (1990) Associate Professor** Psychology
B.S., 1981, Valparaiso University;
Ph.D., 1989, State University of New York-Albany.
- Hilliard, Jerry L. (1984) Professor** Communication
Faculty Emeritus
B.A., 1962 and M.A., 1969, Kent State University;
Ph.D., 1978, University of Tennessee.
- Ho, Chu-Ngi (1983) Associate Professor** Chemistry
B.S., 1975, Denison University;
Ph.D., 1980, University of Washington.
- Holland, Mark (1986) Associate Professor** English
B.A., 1972, Heidelberg College;
M.A., 1977 and Ph.D., 1984, Miami University.
- Holmes, Thomas Alan (1996) Associate Professor** English
B.A., 1981, M.A., 1985 and Ph.D., 1990, University of Alabama.
- Hong, Don (1996) Professor** Mathematics
B.S., 1982, Zhejiang Normal University;
M.S., 1987, Zhejiang University;
Ph.D., 1993, Texas A&M University.
- Huang, Janice (1995) Associate Professor** Mathematics
A.B., 1963, Brown University;
M.A. 1965 and Ph.D., 1992, University of Illinois.
- Huang, Thomas T.-S. (1971) Professor** Chemistry
B.S., 1961, National Taiwan University;
M.A., 1964, East Tennessee State University;
Ph.D., 1969, University of Illinois.
ETSU Distinguished Faculty Award, 1988.
- Hull, Vida J. (1986) Associate Professor** Art and Design
B.A., 1968, Rollins College;
M.A., 1970, Ohio State University;
Ph.D., 1979, Bryn Mawr College.
- Hungate, Christa I. (1981) Assistant Professor** Foreign Languages
B.A., 1977, University of Alabama;
M.A., 1984, University of Northern Iowa.
- Jarrah, Abdul S. (2002) Assistant Professor** Mathematics
B.S., 1992 and M.S., 1995, Yarmouk University, Jordan;
Ph.D., 2002, New Mexico State University.

- Jiang, Mian (2001) Assistant Professor** Chemistry
B.S., 1984, M.S., 1987 and Ph.D., 1991, Wuhan University, China.
- Johnson, Dan M. (1976) Professor** Chair, Biological Sciences
B.S., 1965, Emory and Henry College;
M.S., 1967 and Ph.D., 1969, Michigan State University.
ETSU Foundation Research Award, 1984.
- Joplin, Karl H. (1994) Associate Professor** Biological Sciences
B.S., 1973, University of Washington;
M.S., 1982 and Ph.D., 1989, Ohio State University.
- Kady, Ismail (1990) Associate Professor** Chemistry
B.S., 1977 and M.S., 1979, University of Jordan;
Ph.D., 1986, Michigan State University.
- Kamolnick, Paul (1991) Associate Professor ... Sociology and Anthropology**
B.S., 1983, M.S., 1987, and Ph.D., 1990, Florida State University.
- Karsai, Istvan (2001) Assistant Professor** Biological Sciences
M.S., 1987 and Ph.D., 1997, Jozsef Attila University.
- Kasmai, Hamid S. (1987) Professor** Chemistry
B.S., 1961, Teacher's College, Tehran, Iran;
Ph.D., 1969, University of Wisconsin.
- Kelly, Edward J. (1997) Associate Professor** English
Assistant to the President for Legal Affairs
B.S., 1973, State University of New York;
J.D., 1977, State University of New York at Buffalo, School of Law.
- Kerley, Lyndell M. (1967) Professor** Mathematics
B.S., 1964 and M.A., 1965, Appalachian State University;
Ph.D., 1977, University of Tennessee.
- King, John (1999) Associate Professor** Communication
B.A., 1984, M.S., 1991 and Ph.D., 1995, University of Tennessee.
- Kinser, Amber E. (1997) Associate Professor** Communication
Director, Women's Studies Program
B.A., 1987 and M.A., 1989, University of South Florida;
Ph.D., 1996, Purdue University.
- Kirkwood, William (1978) Professor** Communication
Associate Dean, Special Programs
B.S., 1973, M.A., 1974 and Ph.D., 1978, Northwestern University.
- Knisley, Debra (1990) Associate Professor** Mathematics
B.S., 1976 and M.S., 1979, Tennessee Technological University;
Ph.D., 1989-Memphis State University.
- Knisley, Jeff (1990) Associate Professor** Mathematics
B.A., 1985, Carson-Newman College;
M.S., 1988 and Ph.D., 1990, Vanderbilt University.
- Kortum, Richard D. (1999) Assistant Professor** Philosophy and Humanities
B.A., 1985, Duke University;
D. Phil., 1995, Oxford University.
- Koterbay, Scott M. (1998) Associate Professor** Art and Design
MA, 1992 and Ph.D., 1998, University of St. Andrews, Scotland.
- Kuczynski, Kay (2000) Assistant Professor** Social Work
B.S., 1965, Edgewood College;
M.S.W., 1968, Rutgers University;
D.S.W., 1978, Catholic University.
- LaFollette, Hugh (1977) Professor** Philosophy and Humanities
B.A., 1970, Belmont College;
M.A., 1975 and Ph.D., 1977, Vanderbilt University.
- Laughlin, Thomas F. (2003) Assistant Professor** Biological Sciences
B.S., 1979, M.A.T., 1985, and M.S., 1988, East Tennessee State University;
Ph.D., 1994, Virginia Polytechnic Institute and State University.
- Lawson, Linda M. (1987) Professor** Mathematics
B.S., 1964, M.S., 1969 and Ph.D., 1973, University of Tennessee.
- Leger, Jerry (1973) Professor** Sociology and Anthropology
Director of Planning and Development,
Community Partnership Center
B.A., 1968, North Georgia College;
M.A., 1971 and Ph.D., 1974, University of Iowa;
J.D., 1990, Harvard Law School.
- Levy, Foster (1989) Associate Professor** Biological Sciences
B.A., 1976 and M.A., 1978, City College of New York;
Ph.D., 1989, Duke University.
- Lloyd, Theresa (1996) Associate Professor** English
B.A., 1974, Duke University;
M.A., 1982, Pennsylvania State University;
Ph.D., 1996, University of North Carolina.
- Logan, David G. (1979) Professor** Art and Design
Faculty Emeritus
B.S., 1963, University of Wisconsin;
M.A., 1967, University of Illinois;
M.F.A., 1968, University of Wisconsin.
- Luttermoser, Donald G. (1996) Associate Professor** Physics, Astronomy,
and Geology
B.S., 1981, University of Michigan;
M.A., 1983, Wayne State University;
M.A., 1985 and Ph.D., 1988, Indiana University.
- MacAvoy, Leslie (2000) Assistant Professor** Philosophy and Humanities
B.A., 1988, Swarthmore College;
Ph.D., 1998, McGill University.
- Marx, David (1995) Professor** Psychology
B.S., 1966, M.A., 1969 and Ph.D., 1972, Loyola University.
- McDowell, Timothy D. (1998) Associate Professor** Biological Sciences
B.A., 1983, University of North Carolina, Chapel Hill;
M.A., 1989 and Ph.D., 1995, Duke University.
- McIntosh, Cecilia A. (1993) Associate Professor** Biological Sciences
B.A., 1977, M.A., 1981 and Ph.D., 1990, University of South Florida.
- McLain, Raymond W. (2000) Assistant Professor** Center for Appalachian
Studies
B.A., 1973, Berea College.
- Mijeski, Kenneth J. (1971) Professor** Chair, Political Science
B.A., 1966, Florida State University;
Ph.D., 1971, University of North Carolina.
- Miller, Hugh A., III (1988) Associate Professor** Biological Sciences
B.S., 1979, East Tennessee State University;
Ph.D., 1986, University of Tennessee.
- Miller, Larry S. (1984) Professor** Criminal Justice and Criminology
B.A., 1974, East Tennessee State University;
M.S., 1977, Eastern Kentucky University;
Ph.D., 1981, University of Tennessee.
- Mills, James C. (1971) Professor** Art and Design
Faculty Emeritus
A.A., 1960, Spartanburg Methodist College;
B.A., 1963, Berea College;
M.A.T., 1964, Oberlin College;
Ph.D., 1972, University of Kansas.
- Mink, Patricia (2003) Assistant Professor** Art and Design
B.A., 1981, Kalamazoo College;
M.F.A., 1996, Eastern Michigan University.
- Mooney, James J. (1970) Professor** Communication
A.B.J., 1969 and M.A., 1970, University of Georgia;
Ph.D., 1984, University of Tennessee.
- Moore, Darrell J. (1989) Associate Professor** Biological Sciences
B.A., 1975 and Ph.D., 1983, University of Texas-Austin.
- Murray, Catherine (1995) Associate Professor** Art and Design
B.A., 1982, Portland State University;
M.F.A., 1987, University of Montana.
- Nelson, Ardis L. (1994) Professor** Foreign Languages
B.A., 1965, Oberlin College;
M.A., 1972, Middlebury College, Madrid;
Ph.D., 1980, Indiana University.
- Norwood, Frederick (1987) Associate Professor** Mathematics
B.A., 1966 and Ph.D., 1979, University of Southwestern Louisiana;
M.S., 1969, University of California-Riverside.
- Odom, James L. (1971) Professor** History
B.A., 1963, Birmingham Southern College;
M.A., 1965 and Ph.D., 1968, University of Georgia.
Distinguished Faculty Award, 1997.
- O'Donnell, Kevin E. (1993) Associate Professor** English
B.A., 1984, Kent State University;
M.A., 1987 and Ph.D., 1993, University of Wisconsin-Milwaukee.

- Page, Melvin E. (1987) Professor** History
B.A., 1966, American University;
M.A., 1968, Howard University;
Ph.D., 1977, Michigan State University.
- Pawlowicz, Peter H. (1987) Associate Professor** Art and Design
B.A., 1965, Colby College;
M.A., 1970, West Virginia University;
Ph.D., 1987, Northwestern University.
- Perry, James S. (1970) Professor** Psychology
B.S., Carson-Newman College;
B.S., Southeast Baptist Theological Institute;
M.S., East Tennessee State University;
Ph.D., University of Virginia.
- Pike, Lee M. (1976) Professor** Biological Sciences
B.A., 1967, Albion College;
M.S., 1971 and Ph.D., 1974, Michigan State University.
ETSU Foundation Research Award, 1980.
- Poole, George D. (1986) Professor** Mathematics
B.S.E., 1964, Emporia State University;
M.S., 1966, Colorado State University;
Ph.D., 1972, Texas Tech University.
- Powers-Beck, Jeffrey P. (1993) Associate Professor** English
B.A., 1986, University of Iowa;
M.A., 1988 and Ph.D., 1993, Indiana University.
- Price, Robert M., Jr. (1997) Associate Professor** Mathematics
B.S., 1983 and M.S., 1986, Youngstown State University;
M.S., 1989, Ohio State University;
Ph.D., 1996, University of Wyoming.
- Pyles, Rebecca A. (1991) Associate Professor** Biological Sciences
Interim Dean, College of Arts and Sciences
B.S., 1975, University of Missouri-Kansas City;
M.S., 1979, M.Ph., 1982 and Ph.D., 1988, University of Kansas.
- Razskazovskiy, Yuriy V. (2002) Assistant Professor** Physics,
Astronomy, and Geology
B.S., 1980 and Ph.D., 1984, Moscow State University.
- Rice-See, Lynn (1989) Professor** Music
B.M., 1977, Peabody Conservatory;
M.M., 1979, The Juilliard School;
D.M.A., 1982, University of Southern California.
- Roberts, Charles (1990) Professor** Chair, Communication
B.A., 1965, Davidson College;
M.A., 1967 and Ph.D., 1980, Temple University.
- Robertson, Joe Leonard (1976) Professor** Biological Sciences
B.S., 1965, Union University;
M.S., 1967 and Ph.D., 1975, University of Tennessee.
- Royalty, Dale M. (1971) Associate Professor** History
B.A., 1964, Kenyon College;
M.A., 1967 and Ph.D., 1971, University of Kentucky.
- Sanderbeck, Rande P. (1985) Assistant Professor** Music
B.M., 1978 and M.M., 1985, West Virginia University;
D.M.A., 1997, University of Kentucky.
- Sawyer, Robert E. (2001) Assistant Professor** English
B.A., 1979, Stetson University;
M.A., 1987, Western Carolina University;
Ph.D., 1997, University of Georgia.
- Schmitt, Dale J. (1969) Professor** History
B.A., 1965, Yale University;
M.A., 1968 and Ph.D., 1970, University of Kansas.
- Seier, Edith (1998) Associate Professor** Mathematics
B.S., 1971, San Marcos University;
M.A., 1973, University of Kansas;
M.S., 1996 and Ph.D., 1998, University of Wyoming.
- Shafer, Melissa (1999) Assistant Professor** Communication
B.A., 1983, Southern Illinois University;
M.F.A., 1985, Southern Illinois University-Edwardsville.
- Shanks, Niall (1991) Professor** Philosophy and Humanities
B.A., 1979, University of Leeds;
M.A., 1981, University of Liverpool;
Ph.D., 1987, University of Alberta.
ETSU Foundation Research Award 1998.
- Sherrill, Anne (1982) Professor** English
B.A., 1960 and M.A., 1969, University of Texas-Austin;
Ph.D., 1981, University of Iowa.
- Simon, Leonore (1999) Associate Professor** Criminal Justice and
Criminology
B.A., 1975, University of California-Berkeley;
J.D., 1978, Case Western Reserve School of Law;
M.A., 1988 and Ph.D., 1991, University of Arizona.
- Slagle, Judith B. (1999) Associate Professor** Chair, English
B.S., 1983, and M.A., 1985, East Tennessee State University;
Ph.D., 1991, University of Tennessee.
- Slap, Andrew L. (2002) Assistant Professor** History
B.A., 1994, University of Massachusetts at Amherst;
Ph.D., 2002, Pennsylvania State University.
- Slatton, Ralph (1990) Professor** Chair, Art and Design
B.F.A., 1981 and M.A., 1986, Arkansas State University;
M.F.A., 1990, University of Iowa.
- Smith, Beverly J. (1999) Assistant Professor** Physics,
Astronomy, and Geology
A.B., 1983, Brown University;
Ph.D., 1989, University of Massachusetts.
- Smith, Michael A. (1981) Professor** Art and Design
B.F.A., 1977, Massachusetts College of Art;
M.F.A., 1981, Yale University School of Art.
- Stanley, Isabel Bonnyman (1983) Professor** English
B.A., 1977 and M.A., 1982, East Tennessee State University;
Ph.D., 1990, University of Tennessee.
- Stenstad, Gail (1989) Professor** Chair, Philosophy and Humanities
B.S., 1984, University of Wisconsin;
Ph.D., 1988, Vanderbilt University.
- Tottle, Jack (1994) Associate Professor** Center for Appalachian Studies
Director, Bluegrass and Old-Time Country Music Program
B.A., 1963, Dartmouth College.
- Waage, Frederick O. (1978) Professor** English
A.B., 1965 and Ph.D., 1971, Princeton University.
- Wahlberg, Patty (1999) Professor** Social Work
B.S.W. Program Director
Ed.D., 1992, West Virginia University.
- Wallace, Steven (2001) Assistant Professor** Physics,
Astronomy, and Geology
B.S., 1995, Bowling Green University;
M.S., 1997, Fort Hays State University;
Ph.D., 2001, University of Iowa.
- Wardeska, Jeffrey G. (1967) Professor** Chair, Chemistry
B.S., 1963, Mount Union College;
Ph.D., 1967, Ohio University.
Distinguished Faculty Award, 1996.
- Watson, Elwood D. (1997) Associate Professor** History
B.A., 1990 and M.A., 1992, University of Delaware;
Ph.D., 1999, University of Maine.
- Whitehead, John T. (1987) Professor** Chair, Criminal Justice and
Criminology
B.A., 1969, St. John Vianney Seminary;
M.A., 1973, University of Notre Dame;
M.A., 1978 and Ph.D., 1983, State University of New York-Albany.
- Whitson, Marian H. (1993) Assistant Professor** Criminal Justice and
Criminology
B.A., 1966, Dillard University;
M.S., 1968, Tennessee State University;
J.D., 1984, Miles Law School;
Ph.D., 1994, Indiana University of Pennsylvania.
- Wolfe, Margaret R. (1969) Professor** History
ETSU at Kingsport
B.S., 1967 and M.A., 1969, East Tennessee State University;
Ph.D., 1974, University of Kentucky.
Distinguished Faculty Member, East Tennessee State University, 1977;
ETSU Foundation Research Award, 1979.
- Yampolsky, Lev (2001) Assistant Professor** Biological Sciences
M.S., 1986, Moscow State University;
Ph.D., 1992, N.I. Vavilov Institute.

Zinser, Otto (1970) Professor Psychology
B.S., 1964, Trinity College;
M.A., 1968 and Ph.D., 1970, Texas Christian University.

Zoggyie, Haakayoo (1999) Assistant Professor Foreign Languages
B.A., 1986, University of Ghana;
M.A., 1991, University of Alberta;
Ph.D., 1998, University of Cincinnati.

COLLEGE OF BUSINESS AND TECHNOLOGY

Alavi, Jafar (1985) Professor Chair, Economics, Finance, and Urban Studies

B.S., 1975, Karaj School of Managerial Economics;
M.B.A., 1978, Mississippi State University;
M.A., 1984 and Ph.D., 1986, University of Tennessee.

Andrews, Wayne D. (1987) Professor Technology
Vice President for Administration

B.S., 1974, Fitchburg State College;
M.S., 1976 and Ed.D., 1977, West Virginia University.

Anthony, Murray S. (1972) Professor Accountancy
B.B.A., 1966 and M.B.A., 1967, University of Memphis;
Ph.D., 1975, University of Missouri;
CPA Tennessee.

Bailes, Gordon Lee, Jr. (1972) Professor Computer and Information Sciences

B.S., 1968, M.S., 1969 and Ph.D., 1972, Clemson University.
ETSU Distinguished Faculty Award, 1985.

Bailey, Gene (1983) Professor Computer and Information Sciences
B.S., 1967, Rutgers;
M.S., 1970, University of Minnesota;
Ph.D., 1978, University of Missouri-Rolla.

Barrett, Martin L. (1994) Associate Professor Computer and Information Sciences

B.S., 1975, Pennsylvania State University;
M.A., 1983, University of Maryland;
M.S., 1986 and Ph.D., 1989, University of Wisconsin-Madison.

Baryla, Edward A., Jr. (1995) Associate Professor Economics, Finance, and Urban Studies

B.A., 1982, and M.B.A., 1990, University of Scranton;
M.A., 1994 and Ph.D., 1995, University of Alabama.

Bayes, Paul E. (1984) Professor Chair, Accountancy

B.S., 1965, University of Kentucky;
M.S., 1968, Indiana State University;
D.B.A., 1983, University of Kentucky.

Blanton, William Hugh (1999) Assistant Professor Technology

B.S., 1971, University of Houston;
M.S., 1978 and M.B.A., 1986, West Texas State University;
Ed.D., 1992, East Tennessee State University.

Broome, Hugh W. (1962) Associate Professor Technology

B.S., 1958, University of Tennessee;
M.A., 1962, East Tennessee State University;
M.S., 1969, University of Arizona.

Burdick, Kent (1999) Instructor Geography, Geology and Geomatics

B.S., 1988 and M.A., 1993, East Tennessee State University.

Burkette, Gary D. (1992) Associate Professor Accountancy
Coordinator, M.Acc. Program

B.S., 1978, Wake Forest University;
M.Acct., 1986 and Ph.D., 1994, Virginia Tech;
CPA, North Carolina.

Chu, Ting-Heng (2001) Assistant Professor Economics, Finance, and Urban Studies

B.A., 1992, National Chung Hsing University, Taipai;
M.B.A., 1995, and Ph.D., 2002, University of Texas-Arlington.

Clark, Marian M. (1986) Associate Professor Surveying and Mapping
B.S., 1973 and M.S., 1978, Purdue University;
Ph.D., 1985, University of Wisconsin-Madison.

Clark, W. Andrew (2002) Associate Professor Technology
B.S., 1975, Colorado State University;
M.S., 1978, University of Georgia;
Ph.D., 1980, North Carolina State University.

Cornett, Cheryl G. (2002) Associate Professor Technology
B.F.A., 1980, University of Georgia;
M.F.A., 1989, Syracuse University.

Counterline, Terry A. (1990) Professor ... Chair, Computer and Information Sciences

B.S., 1965, Alliance College;
D.Ed., 1973, Pennsylvania State University.

Czuchry, Andrew J. (1992) Professor Management and Marketing
Chairholder, AFG Industries

Chair of Excellence in Business and Technology
B.S.E.E., 1964, M.S.A.E., 1965 and Ph.D., 1969, University of Connecticut.

Dennis, Steven A. (2001) Associate Professor Economics, Finance, and Urban Studies

Chair of Banking, Director of the Center for Banking
B.B.A., 1989, M.S., 1992, and Ph.D., 1993, University of Kentucky.

Disque, Ann (2001) Instructor Applied Human Sciences

B.A., 1978, St. Andrews Presbyterian College;
M.Ed., 1997, East Tennessee State University.

Dotterweich, Douglas P. (1984) Professor . Economics, Finance, and Urban Studies

B.A., 1973, University of Tennessee;
M.A., 1975 and Ph.D., 1978, University of Delaware.

Driver, Michaela C. (1998) Associate Professor . Management and Marketing

B.S., 1993, M.A., 1995 and Ph.D., 1997, University of Alabama.

Everett, Michael David (1977) Professor Economics, Finance, and Urban Studies

B.A., 1960 and Ph.D., 1967, Washington University.

Felker, Lon S. (1988) Professor Economics, Finance, and Urban Studies

A.B., 1968, University of South Carolina;
M.A., 1969 and Ph.D., 1975, Michigan State University.

Frierson, James G. (1973) Professor Management and Marketing

B.S., 1962, Arkansas State University;
J.D., 1965 and M.B.A., 1969, University of Arkansas.
ETSU Distinguished Faculty Member, 1977;
ETSU Foundation Research Award, 1986.

Gotterbarn, Donald W. (1990) Professor Computer and Information Sciences

B.A., 1964, Hofstra University;
M.A., 1970 and Ph.D., 1971, University of Rochester.

Gunter, Charles R., Jr. (1964) Associate Professor Interim Chair, Geography, Geology and Geomatics

B.S., 1962, Middle Tennessee State University;
M.A., 1963, University of Tennessee.

Hales, James A. (1984) Professor Technology

B.S., 1957 and M.A., 1960, Kent State University;
Ed.D., 1972, West Virginia University.

Hipple, F. Steb (1982) Professor Economics, Finance and Urban Studies

B.A., 1962 and M.A., 1964, Trinity University;
Ph.D., 1972, Southern Methodist University.

Hriso, Peter (2002) Assistant Professor Technology

B.S., 1992, University of Southern Indiana;
M.F.A., 1994, Ohio State University.

Hyder, Carroll R. (1967) Associate Professor Associate Dean

B.S., 1967 and M.S., 1967, East Tennessee State University;
Ph.D., 1971, Ohio State University.

Jenkins, Steven L. (2002) Assistant Professor Computer and Information Sciences

B.A., 1989, East Tennessee State University;
B.S., 1995, Iowa State University.

Johnson, Keith V. (1993) Associate Professor Chair, Technology

B.S., 1987 and M.S., 1988, North Carolina A&T State University;
Ph.D., 1993, Ohio State University.

Kridler, Jamie K. (1997) Associate Professor Chair, Applied Human Sciences

B.S., 1976 and M.S., 1977, University of Tennessee;
Ph.D., 1985, Ohio State University.

- Langenbrunner, Mary (1993) Associate Professor** Applied Human Sciences
B.S., 1974 and M.S., 1976, University of Kentucky;
Ph.D., 1986, University of Tennessee.
- Loess, Kurt H. (1998) Assistant Professor** Management and Marketing
B.A., 1977, The College of Wooster;
M.B.A., 1987 and Ph.D., 1998, Case Western Reserve University.
- Lowe, Beth (1999) Assistant Professor** Applied Human Sciences
B.S., 1974 and M.S., 1982, University of Tennessee.
- Mackara, W. Frederick (1975) Associate Professor** Economics, Finance, and Urban Studies
Assistant Director, Graduate Business Studies
A.B., 1969, Rutgers University;
Ph.D., 1976, Texas A&M University.
- Manahan, Richard A. (1981) Professor** Accountancy/Educational Leadership and Policy Analysis
Vice President for University Advancement
B.S., 1965, M.S., 1971 and Ed.D., 1975, Illinois State University;
CPA, Tennessee, Virginia, and Illinois.
- Marchioni, Michael P. (1976) Associate Professor** Economics, Finance, and Urban Studies
B.A., 1963, Montclair State College;
M.A., 1968, Louisiana State University;
Ph.D., 1971, University of Cincinnati.
- McKee, Thomas E. (1976) Professor** Accountancy
B.S., 1969, East Tennessee State University;
M.B.A., 1973 and Ph.D., 1975, Georgia State University;
CIA, CMA, CPA, Tennessee and North Carolina.
- McKinney, Michael M. (1994) Associate Professor** Management and Marketing
Assistant Dean for External Programs and Relations
B.S., 1980, and M.B.A., 1987, East Tennessee State University;
J.D., 1991, Columbia University.
- Maxwell, Tara (2002) Assistant Professor** Technology
B.S., 1996, University of Virginia;
M.S., 1998, East Tennessee State University.
- May, Robert M., II (1982) Assistant Professor** Technology
B.S.E.E., 1968, Virginia Polytechnic Institute and State University;
M.S.E., 1985, University of Tennessee.
- Miller, Phillip E. (1994) Associate Professor** Chair, Management and Marketing
B.S., 1972, University of Tennessee;
M.S., 1978, Air Force Institute of Technology;
M.S., 1979, University of Southern California;
Ph.D., 1985, University of North Carolina.
- Nave, Jerry (2001) Assistant Professor** Surveying and Mapping
B.S., 1986 and M.S., 1999, East Tennessee State University.
- Neal, Janet D. (2003) Assistant Professor** Management and Marketing
B.S., 1985, Radford University;
M.B.A., 1991 and Ph.D., 2000, Virginia Polytechnic Institute and State University.
- Nehring, Nancy (1988) Associate Professor** Applied Human Sciences
B.S., 1972 and M.S., 1977, University of Wisconsin-Stevens Point;
Ph.D., 1993, Virginia Polytechnic Institute & State University.
- Pointer, Martha M. (1991) Associate Professor** Accountancy
Associate Dean and Director, Graduate Studies, College of Business
B.S., 1972, Tennessee Technological University;
M.A., 1977 and M.B.A., 1981, East Tennessee State University;
Ph.D., 1992, University of South Carolina; CPA, Tennessee.
- Prather, Larry (1999) Associate Professor** Economics, Finance, and Urban Studies
B.S., 1988, State University of New York;
M.B.A., 1992, M.A., 1994 and Ph.D., 1995, Old Dominion University.
- Peplies, Robert W. (1966) Professor** ... Geography, Geology and Geomatics
Faculty Emeritus
B.S., 1956 and M.A., 1960, Northern Illinois University;
Ph.D., 1965, University of Georgia.
- Pfeiffer, Phillip E., IV (1996) Associate Professor** Computer and Information Sciences
B.S., 1976, Yale University;
M.S., 1986 and Ph.D., 1991, University of Wisconsin, Madison.
- Pine, Vernon (1999) Assistant Professor** Computer and Information Sciences
B.S., 1967, Roanoke College;
M.S., 1996, East Tennessee State University.
- Pleasant, James C. (1966) Professor** Computer and Information Sciences
Faculty Emeritus
B.S., 1958 and M.A., 1960, East Carolina University;
Ph.D., 1965, University of South Carolina.
- Quigley, John V. (1984) Associate Professor** Management and Marketing
Director of Honors and Discipline
B.B.A., 1967, M.B.A., 1970 and Ph.D., 1979, Georgia State University.
- Riser, Robert Richard (1977) Professor** Computer and Information Sciences
B.S., 1961, Tusculum College;
M.S., 1965, Stevens Institute of Technology.
- Roach, Jeffrey W. (2002) Assistant Professor** Computer and Information Sciences
B.S., 1995, University of Technology, Jamaica;
M.S., 2000, East Tennessee State University.
- Roberts, Anna D. (1982) Associate Professor** Applied Human Sciences
B.S., 1974, East Tennessee State University;
Ph.D., 1990, University of North Carolina, Greensboro.
- Ryman, Joel A. (2003) Assistant Professor** Management and Marketing
B.A., 1983, Goshen College;
M.S., 1988, Thunderbird;
Ph.D., 1999, University of Tennessee.
- Sanderson, Donald B. (1993) Associate Professor** Computer and Information Sciences
B.A., 1984, New College of University of South Florida;
M.S., 1986 and Ph.D., 1994, Rensselaer Polytechnic Institute.
- Schneider, Kent N. (1984) Professor** Accountancy
B.S.B.A., 1975 and J.D., 1978, University of Missouri-Columbia;
M.Acc., 1984, University of Oklahoma;
CPA, Missouri and Texas.
- Shemwell, Donald J. (1993) Associate Professor** Management and Marketing
B.S., 1979 and Ph.D., 1993, Florida State University.
- Sims, Joseph P. (2000) Associate Professor** Technology
B.S., 1985 and 1991, Middle Tennessee State University;
M.S., 1989, University of Tennessee;
Ph.D., 1996, University of Wales, UK.
- Smith, Jon L. (1980) Associate Professor** ... Economics, Finance, and Urban Studies
Director, Bureau of Business and Economic Research
B.S., 1968, Mississippi State University;
M.A., 1975 and Ph.D., 1982, University of South Carolina.
- Spritzer, Allan D. (1981) Professor** Management and Marketing
Chairholder, Allen & Ruth Harris Chair of Excellence in Business
B.A., 1963, City College of New York;
M.A., 1964, University of Illinois;
Ph.D., 1971, Cornell University.
- Stead, Jean Garner (1982) Professor** Management and Marketing
B.S., 1971 and M.A., 1973, Auburn University;
M.B.A., 1979, Western Illinois University;
Ph.D., 1983, Louisiana State University.
ETSU Foundation Teaching Award, 1995.
- Stead, W. Edward (1982) Professor** Management and Marketing
B.S., 1968 and M.B.A., 1972, Auburn University;
Ph.D., 1976, Louisiana State University.
- Steadman, Mark E. (1989) Associate Professor** Accountancy
B.S., 1979, University of Tennessee;
M.Acc., 1982, East Tennessee State University;
Ph.D., 1990, University of Tennessee;
CPA, Tennessee.

- Story, Charles H. (1965) Professor** Technology
Faculty Emeritus
B.S., 1961, Murray State University;
M.S.Ed., 1965, Southern Illinois University;
Ed.D., 1970, Texas A&M University.
- Swinehart, Kerry D. (1990) Associate Professor** Management and
Marketing
B.A., 1983, University of South Florida;
M.B.A., 1985 and Ph.D., 1989, University of Georgia.
- Tarnoff, Karen A. (1994) Assistant Professor** Management and Marketing
B.S., 1987, M.S., 1993 and Ph.D., 1999,
Virginia Polytechnic Institute and State University.
- Thomas, Neil (1999) Assistant Professor** Computer and Information
Sciences
B.S., 1979, California State University;
M.S., 1987, East Tennessee State University;
Ph.D., 1989, University of Tennessee.
- Tillman, Primus J. (1999) Assistant Professor** Technology
B.A., 1984, University of Memphis;
M.A., 1990-Memphis College of Arts.
- Trogen, Paul C. (1995) Assistant Professor** Economics, Finance, and
Urban Studies
Interim Director, Master of Public Administration Program
B.A., 1976, University of St. Thomas;
M.A., 1991, Mankato State University;
Ph.D., 1995, Florida State University.
- Turner, Craig (2002) Assistant Professor** Management and Marketing
B.S., 1981, and M.B.A., 1990, University of Central Florida;
Ph.D., 1999, University of Tennessee.
- Vaglia, John S. (1976) Professor** Technology
Associate Dean, College of Applied Science and Technology
B.S., 1964, California University of Pennsylvania;
M.A., 1970, East Tennessee State University;
Ph.D., 1978, University of Maryland.
- Verhegge, Ruth D. (1981) Assistant Professor** Applied Human Sciences
B.S., 1966, Florida State University;
M.S., 1973, Emory University.
- Wallace, Steven (2001) Assistant Professor** Geography, Geology and
Geomatics
B.S., 1995, Bowling Green State University;
M.S., 1997, Fort Hays State University;
Ph.D., 2001, University of Iowa.
- Warren J. Harold (1969) Associate Professor** Economics, Finance, and
Urban Studies
B.S., 1961, Bowling Green University;
Ph.D., 1969, Oklahoma State University.
- Weir, Ronald L. (1971) Professor** Management and Marketing
B.S., 1965 and M.B.A., 1967, Northeast Louisiana State College;
D.B.A., 1977, Mississippi State University.
ETSU Distinguished Faculty Member, 1976.
- Wronecki, James A. (2002) Assistant Professor** Technology
B.A., 1990, State University of New York-Buffalo;
M.I.D., 1998, The University of Arts.
- Yasin, Mahmoud M. (1988) Professor** Management and Marketing
B.A., 1981, M.S., 1983 and Ph.D., 1986, Clemson University.
ETSU Foundation Research Award, 1996.
- Yavas, Ugur (1987) Professor** Management and Marketing
B.A., 1970, Robert College;
M.B.A., 1972 Florida State University;
M.B.A., 1974 and Ph.D., 1976, Georgia State University.
ETSU Foundation Research Award, 1993.
- Yuan, Qing (2001) Associate Professor** Computer and Information Sciences
B.A., 1978 and M.A., 1982, Northeast Teachers' University;
M.S., 1984 and Ed.D., 1998, East Tennessee State University.

SCHOOL OF CONTINUING STUDIES

- MacRae, Norma (1987) Professor** Human Development and Learning
Vice Provost for Public Service and
Dean of Continuing Studies
A.B., 1969, University of Georgia;
M.Ed., 1975 and Ed.D., 1980, University of Kentucky.
- Osborn, Richard E. (1990)** Cross-Disciplinary Studies
B.A., 1976, M.A., 1978, and Ed.S., 1983, Western Illinois University;
Ph.D., 1990, University of Iowa.
- Pinner, Michael R. (1996)** Cross-Disciplinary Studies
A.A., 1975, Brevard College;
B.A., 1977, Central Wesleyan College;
B.A., 1986, University of North Carolina-Asheville;
M.A., 1988 and Ph.D., 1990, Florida State University.
- Tedesco, Marie (1985)** Cross-Disciplinary Studies
B.A., 1976, Marietta College;
M.A., 1973 and Ph.D., 1978, Georgia State University.
- Walters, Gary M. (1971)** Physics
Assistant Dean for Distance Education, Continuing Studies
B.S., 1963 and Ph.D., 1967, University of Tennessee.

COLLEGE OF EDUCATION

- Beauchamp, Barbara T. (2000) Assistant Professor** Human
Development and Learning
B.A., 1989, Denison University;
M.A., 1991, Xavier University;
Psy.D., 2000, Spalding University.
- Bettis, Glenn E. (2000) Associate Professor** Educational Leadership
and Policy Analysis
B.S., and M.S., East Tennessee State University;
Ph.D., Ohio State University.
- Bitter, James R. (1995) Professor** Human Development
and Learning
B.A., 1969, Gonzaga University;
M.Ed., 1971 and Ed.D., 1975, Idaho State University.
- Blankenship, Cecil N. (1971) Professor** Human Development
and Learning
B.S., 1968 and M.A.T., 1970, East Tennessee State University;
Ed.D., 1972, University of Tennessee.
- Broderick, Jane T. (2003) Assistant Professor** Human Development
and Learning
B.F.A., 1976, Pratt Institute;
M.A., 1996, Vermont College of Norwich University;
Ed.D., 2003, University of Massachusetts-Amherst.
- Brown, Wesley C. (1980) Professor** Human Development
and Learning
Vice Provost for Academic Affairs and
Dean, School of Graduate Studies and Special Programs
B.A., 1969, Florida State University;
M.A. 1971, University of South Florida;
Ph.D., 1975, Kent State University.
ETSU Distinguished Faculty Award, 1991 and 1994.
- Burleson, Rebecca (2000) Assistant Professor** Human Development
and Learning
B.S., 1990 and M.Ed., 1996, East Tennessee State University;
Ed.D., 2001, University of Kentucky.
- Clements, Andrea D. (1995) Associate Professor** Human Development
and Learning
B.S., 1982, M.A., 1984 and Ph.D., 1991, University of Alabama.
- Coates, Thomas E. (1998), Associate Professor** Interim Chair, Physical
Education, Exercise, and Sport Sciences
B.A., 1971, Mars Hill College;
M.A., 1974, Western Carolina University;
D.A., 1981, Middle Tennessee State University;
M.P.R.T.M., 1992, Clemson University.
- Collins, Martha D. (1993) Professor** Curriculum and Instruction
B.S.Ed., 1967, University of Georgia;
M.Ed., 1969 and Ph.D., 1972, Florida State University.

- Coutinho, Martha J. (1995) Professor Human Development and Learning**
B.A., 1974 and M.A., 1976, University of Colorado;
Ph.D., 1981, University of Connecticut.
ETSU Distinguished Faculty Award, 1999.
- Cummings, Rhona S. (1991) Associate Professor Curriculum and Instruction**
B.A., 1972, Connecticut College;
M.Ed., 1973, University of North Dakota;
Ed.D., 1988, University of Houston.
- Daniels, Harold L. (2000) Assistant Professor .. Curriculum and Instruction**
B.A., 1983 and M.A., 1993, Appalachian State University;
Ph.D., 1996, Virginia Polytechnic Institute and State University.
- Davis, T. Jason (2002) Assistant Professor Physical Education, Exercise and Sport Sciences**
MRS, 1996, Georgia Southern University;
Ph.D., 2003, Clemson University.
- De Hoyos, Diego (2002) Assistant Professor Physical Education, Exercise and Sport Sciences**
B.A., 1987, Rollins College;
M.A., 1990, University of Central Florida;
Ph.D., 1999, University of Florida.
- Dishner, Nancy (1985) Associate Professor Educational Leadership and Policy Analysis**
Vice Provost for Enrollment Services
B.S., 1977, M.A., 1980 and Ed.D., 1984, East Tennessee State University.
- Disque, J. Graham (1994) Associate Professor Human Development and Learning**
B.A., 1980, St. Andrews Presbyterian College;
M.A., 1987, Appalachian State University;
Ph.D., 1992, Virginia Polytechnic Institute and State University.
- Driskell, Katherine T. (1984) Professor Curriculum and Instruction**
B.S., 1963, George Peabody College;
M.S., 1965, University of Wisconsin;
Ph.D., 1983, University of Tennessee.
- Dwyer, Edward J. (1976) Professor Curriculum and Instruction**
B.S., 1962, Boston College;
M.Ed., 1974, University of Saskatchewan;
Ph.D., 1977, University of Georgia.
- Evanshen, Pamela A. (2001) Assistant Professor ... Human Development and Learning**
B.A., 1982, Tusculum College;
M.Ed., 1984 and Ed.D., 2001, East Tennessee State University.
- Fox, James J. (1990) Professor Human Development and Learning**
Research Director, Center for Early Childhood Learning and Development
B.A., 1972, College of William and Mary;
M.A., 1975, University of Richmond;
Ph.D., 1982, University of Tennessee-Knoxville.
- Freeberg, Karilee (1999) Professor Chair, Curriculum and Instruction**
B.A., 1963, University of Iowa;
M.S., 1975, Iowa State University;
Ph.D., 1977, Iowa State University of Science and Technology.
- Gann, Rosalind R. (2002) Assistant Professor .. Curriculum and Instruction**
B.A., 1970, Brooklyn College, City University of New York;
M.S.W., 1974, Smith College;
Ed.D., 2002, University of Cincinnati.
- Isbell, Rebecca T. (1975) Professor Human Development and Learning**
Director, Center for Early Childhood
B.S., 1964, University of Tennessee;
M.A., 1973, East Tennessee State University;
Ed.D., 1979, University of Tennessee.
ETSU Distinguished Faculty Award, 1994.
- Johnson, J. Woody (2000) Associate Professor Human Development and Learning**
B.A., 1982 and M.A., 1987, East Carolina University;
Ed.D., 1998 Northern Illinois University.
- Joy, Flora F. (1967) Curriculum and Instruction**
Faculty Emerita
B.A., 1963 and M.A., 1967, East Tennessee State University;
Ed.D., 1972, University of Tennessee.
ETSU Distinguished Faculty Award, 1986 and 1998.
- Knight, W. Hal (1986) Professor Educational Leadership and Policy Analysis**
Interim Dean, College of Education
B.A., 1972, Augusta College;
M.P.A., 1977, West Virginia College of Graduate Studies;
Ph.D., 1983, Kansas State University.
- MacKay, Louise (1993) Associate Professor Educational Leadership and Policy Analysis**
B.A., 1957, Transylvania University, Lexington Kentucky;
M.A., 1969 and Ph.D., 1983, George Peabody College for Teachers, Vanderbilt University.
- Malkus, Amy J. (2000) Assistant Professor Human Development and Learning**
B.A., 1988, Washington College;
M.S., 1992 and Ph.D., 1995, Purdue University.
- Manahan, Richard A. (1981) Professor Accountancy/Educational Leadership and Policy Analysis**
Vice President for University Advancement
B.S., 1965, M.S., 1971 and Ed.D., 1975, Illinois State University;
CPA, Tennessee, Virginia, and Illinois.
- Marks, Lori (1993) Associate Professor Human Development and Learning**
B.A., 1983, Flagler College;
M.Ed., 1987, University of North Florida;
Ph.D., 1993, University of Florida.
ETSU Distinguished Faculty Award, 2000.
- Mattioli, Denee J. (1997) Associate Professor Curriculum and Instruction**
B.S., 1969, Westmar College;
M.A., 1984 and Ph.D., 1990, University of Iowa.
- McLean, James E. (2000) Professor College of Education**
James H. Quillen Chair of Excellence in Teaching and Learning
B.S.Ed., 1968, M.Stat., 1971 and Ph.D., 1974, University of Florida.
- Melendez, Jane E. (2000) Professor Curriculum and Instruction**
B.S., 1961, Eastern Michigan University;
M.S., 1981 and Ph.D., 1991, Indiana University.
- Mitchell, Clifton W. (1992) Professor Human Development and Learning**
B.A., 1974, Virginia Polytechnic Institute;
M.A., 1976, Western Kentucky University;
Ph.D., 1992, Indiana State University.
ETSU Distinguished Faculty Award, 2002.
- Morrow, Brent (1986) Associate Professor Human Development and Learning**
B.A., 1969, University of California;
M.A., 1977, Mennonite Brethren Seminary;
Ph.D., 1986, Texas Tech University.
- Mozen, Diana M. (2000) Assistant Professor Physical Education, Exercise & Sport Sciences**
B.S., 1980, M.Ed., 1980 and Ph.D., 1998, Georgia State University.
- Perry, Leslie A. (1991) Professor Curriculum and Instruction**
B.S.E., 1967, Central Methodist College;
M.S., 1975, East Texas State University;
Ph.D., 1979, University of Mississippi.
- Phillips, Laurelle B. (2000) Assistant Professor Human Development and Learning**
B.A., 1964, Emory University;
M.Ed., 1992, East Tennessee State University;
Ph.D., 1999, University of Tennessee.
- Pindiprolu, Sekhar S. (2001) Assistant Professor .. Human Development and Learning**
B.S., 1989, Nagarjuna University, India;
B.M.R., 1992, National Institute for the Mentally Handicapped, India;
M.Ed., 1993, Kurukshetra University, India;
M.Phil., 1995, Jamia Millia Islamia, India;
Ph.D., 2000, Utah State University.
- Ralston, Elizabeth (1993) Associate Professor Curriculum and Instruction**
Interim Associate Dean, College of Education
Director, Field Services
B.A., 1970, Texas A&I University;
M.Ed., 1973 and Ed.D., 1978-Memphis State University.

Reed, Delanna (1999) Instructor Curriculum and Instruction
A.A., 1974, Eastfield College;
B.A., 1976, East Texas State University;
M.A., 1986, University of North Texas.

Renner, Jasmine (2003) Assistant Professor Educational Leadership
and Policy Analysis
LL.B. Hons., 1993, University of Sierra Leone, Fourah Bay College;
LL.M., 1998, University of Georgia School of Law;
Ed.D., 2002, Bowling Green State University.

Rhoton, Jack (1987) Professor Curriculum and Instruction
A.A., 1964, Hiwassee College;
B.S., 1966, East Tennessee State University;
M.Ed., 1969, University of Virginia;
M.S., 1974, Old Dominion University;
Ed.D., 1984, University of Tennessee.
ETSU Distinguished Faculty Award, 1995.

Roberts, Lloyd T. II (1973) Senior Affiliate Faculty Physical Education,
Exercise, and Sport Sciences
B.S., 1961 and M.A., 1965, East Tennessee State University;
Ed.D., 1973, University of Mississippi.

Robertson, Patricia E. (1997) Associate Professor Chair, Human
Development and Learning
B.A., 1973, University of North Carolina-Chapel Hill;
M.A.Ed., 1974, Western Carolina University;
Ed.D., 1990, University of North Carolina-Greensboro.

Snider, J. Blake (2002) Assistant Professor Human Development and
Learning
B.A., 1994, Lee University;
M.S., 1999, and Ph.D., 2002, Auburn University.

Sobol, Joseph D. (2000) Associate Professor Curriculum and Instruction
B.A., 1976, Sarah Lawrence College;
M.A., 1987, University of North Carolina;
Ph.D., 1994, Northwestern University.

Taylor, John M. (1966) Senior Affiliate Faculty ... Curriculum and Instruction
B.S., 1954, Lincoln Memorial University;
M.A., 1961, East Tennessee State University;
Ph.D., 1972, University of Miami.
ETSU Distinguished Faculty Award, 1981 and 1996.

Tollefson, Terry (1993) Professor Educational Leadership and Policy
Analysis
A.B., 1961, University of Michigan;
M.B.A., 1963, Michigan State University;
Ph.D., 1975, University of Michigan.

West, Russell F. (1988) Professor Interim Chair,
Educational Leadership and Policy Analysis
B.S., 1975 and M.A., 1978, Michigan State University;
Ed.D., 1981, North Carolina State University.

Whitmore, Harold L. (1970) Senior Affiliate Faculty Human Development
and Learning
B.S., 1961, Shepherd College;
M.A., 1967 and Ed.D., 1970, West Virginia University.

Willis, Clarissa (2001) Assistant Professor Human Development and
Learning
B.A., 1977 and M.A., 1979, University of Arkansas;
Ph.D., 1993, University of Southern Mississippi.

SCHOOL OF GRADUATE STUDIES

Brown, Wesley C. (1980) Professor Vice Provost for Academic Affairs
and Dean, School of Graduate Studies and Special Programs
B.A., 1969, Florida State University;
M.A., 1971, University of South Florida;
Ph.D., 1975, Kent State University.
ETSU Distinguished Faculty Award, 1991 and 1994.

Powers-Beck, Jeffrey P. (1993) Associate Professor English
Assistant Dean, School of Graduate Studies
B.A., 1986, University of Iowa;
M.A., 1988 and Ph.D., 1993, Indiana University.

COLLEGE OF MEDICINE

Agrawal, Alok (2002) Assistant Professor Pharmacology
M.Sc., 1984, Banaras Hindu University;
Ph.D., 1989, Visv Abharati University.

Ardell, Jeffrey L. (1998) Professor Pharmacology
B.A., 1975, Colorado College;
Ph.D., 1980, University of Washington.

Armstrong, Stephen C. (1991) Assistant Professor Pathology
B.S., 1979, University of Florida;
Ph.D., 1986, University of Pennsylvania School of Medicine.

Baisden, Ronald H. (1978) Professor Anatomy and Cell Biology
B.S., 1968 and Ph.D., 1973, University of Florida.

Champney, W. Scott (1982) Professor Biochemistry and
Molecular Biology
Adjunct Faculty, Biological Sciences
A.B., 1965, University of Rochester;
Ph.D., 1970, State University of New York-Buffalo.
ETSU Distinguished Faculty Award, 2000.

Chi, David S. (1980) Professor Internal Medicine
Adjunct Faculty, Microbiology/Pathology/Pharmacology
Chief, Division of Biomedical Research
B.S., 1965, National Chung-Hsing University, China;
M.A., 1974 and Ph.D., 1977, University of Texas Medical Branch.

Chua, Balvin H.L. (1994) Professor Chair, Quillen Geriatrics
B.S., National Taiwan University;
M.S., and Ph.D., University of Wisconsin.

Defoe, Dennis M. (1996) Associate Professor Anatomy and Cell Biology
B.A., 1974, University of Colorado;
Ph.D., 1981, University of California.

Ecay, Tom W. (1995) Associate Professor Physiology
B.S., 1980 and Ph.D., 1986, Boston College.

Ernst-Fonberg, M. Lou (1978) Professor Biochemistry and Molecular
Biology
Adjunct Faculty, Biological Sciences
A.B., 1958, Susquehanna University;
M.D., 1962, Temple University School of Medicine;
Ph.D., 1967, Yale University.

Ferslew, Kenneth E. (1982) Professor Pharmacology
B.S., 1975 and M.S., 1976, University of Florida;
Ph.D., 1982, Louisiana State University School of Medicine.

Hancock, John C. (1977) Professor Pharmacology
B.S., 1962, University of Missouri-Kansas City;
M.S., 1965 and Ph.D., 1967, University of Texas.
ETSU Distinguished Faculty Award, 2001.

Hayman, J. Russell (2002) Assistant Professor Microbiology
B.S., 1987, Mississippi College;
Ph.D., 1995, University of Mississippi Medical Center.
B.S., 1949, Virginia Polytechnic Institute;
M.D., 1953, Duke University School of Medicine.
M.D., 1989, University of Pennsylvania.

Hoover, Donald B. (1978) Professor Pharmacology
B.S., 1972, Grove City College;
Ph.D., 1976, West Virginia University.
ETSU Distinguished Faculty Award for Research, 2002.

Hossler, Fred E. (1981) Professor Anatomy and Cell Biology
B.S., 1963, Muhlenberg College;
M.S., 1965, Pennsylvania State University;
Ph.D., 1971, University of Colorado.

Johnson, David A. (1978) Professor Biochemistry and Molecular Biology
Adjunct Faculty, Biological Sciences
B.S., 1967 and Ph.D., 1973-Memphis State University.
ETSU Foundation Research Award, 1987.

Joyner, William L. (1989) Professor Chair, Physiology
Adjunct Faculty, Internal Medicine
B.S., 1965, Davidson College;
M.S.P.H., 1967 and Ph.D., 1971, University of North Carolina, Chapel
Hill.

- Kalbfleisch, John H. (1988) Professor** Medical Education
 Director, Division of Biometry and Medical Computing
 B.S., 1965 and M.A., 1966, Western Michigan University;
 Ph.D., 1970, University of Oklahoma.
- Kao, Race L. (1992) Professor** Surgery
 Adjunct Faculty, Physiology
 Chairholder, Carroll H. Long Chair in Surgical Research
 B.S., 1965, National Taiwan University, Taiwan;
 M.S., 1971 and Ph.D., 1972, University of Illinois.
- Kostrzewa, Richard M. (1978) Professor** Pharmacology
 B.S., 1965 and M.S., 1967, Philadelphia College of Pharmacy and
 Science;
 Ph.D., 1971, University of Pennsylvania.
 ETSU Foundation Award, 1981.
- Krishnaswamy, Guha (1992) Professor** Internal Medicine
 Chief, Division of Allergy
 Adjunct Faculty, Physiology
 M.B.B.S., 1983, University of Madras Medical College, India.
- Kwasigroch, Thomas E. (1979) Professor** Anatomy and Cell Biology
 Assistant Dean for Curriculum and Director,
 Anatomical Gift Program
 B.S., 1967, Niagara University;
 Ph.D., 1976, University of Virginia.
- Laffan, John J. (1992) Associate Professor** Microbiology
 B.A., 1982, Hamilton College;
 Ph.D., 1988, Wesleyan University.
- Lee, Prescott P. (2001) Assistant Professor** Internal Medicine
 B.S., 1988, University of California, Los Angeles;
 M.D., 1993, Tufts University School of Medicine.
- Mayberry, William R. (1978) Professor** Associate Chair, Microbiology
 B.A., 1961, University of Colorado;
 M.A., 1963, Western State College of Colorado;
 Ph.D., 1966, University of Georgia.
- McGowen, K. Ramsey (1985) Professor** Psychiatry and
 Behavioral Sciences
 B.S., 1975, M.S., 1977 and Ph.D., 1981, Auburn University.
 ETSU Distinguished Faculty Award, 2003.
- Miller, Barney (1997) Associate Professor** Psychiatry and Behavioral
 Sciences
 Adjunct, Anatomy and Cell Biology
 B.A., 1975, University of Tennessee-Chattanooga;
 Ph.D., 1983, University of Tennessee-Memphis.
- Miller, Merry N. (1995) Professor** Chair, Psychiatry and
 Behavioral Sciences
 B.S., 1975, Southwestern-Memphis;
 M.S., 1983, University of Tennessee;
 M.D., 1983, Duke University.
- Monaco, Paul J. (1987) Professor** Anatomy and Cell Biology
 B.A., 1974, Merrimack College;
 M.S., 1977 and Ph.D., 1982, Marquette University.
- Moorman, Jonathan P. (2000) Associate Professor** Internal Medicine
 B.S., 1987, Loyola College;
 M.D., 1991, University of Virginia School of Medicine.
- Musich, Phillip R. (1980) Professor** Biochemistry and Molecular Biology
 Adjunct Faculty, Biological Science
 B.S., 1968, Creighton University;
 Ph.D., 1973, University of Chicago.
- Panini, Sankhavaram, R. (1996) Associate Professor** Biochemistry and
 Molecular Biology
 B.S., 1968, Andhra University, Waltair, India;
 M.S., 1970, University of Baroda, India; D.I.L.Sc., 1971;
 Ph.D., 1975, Indian Institute of Science, Bangalore, India.
- Rasch, Ellen M. (1978) Professor** Anatomy and Cell Biology
 Ph.B., 1945, B.S., 1947, M.S., 1948 and Ph.D., 1950,
 The University of Chicago.
 ETSU Distinguished Faculty Award, 1989.
- Raulston, Jane E. (2000) Associate Professor** Microbiology/Pathology
 B.S., 1984, East Tennessee State University;
 Ph.D., 1988, University of Tennessee.
- Rice, Peter J. (1986) Associate Professor** Pharmacology
 B.S., 1976, Northeastern University;
 Ph.D., 1983, Ohio State University College of Pharmacy.
- Robinson, Mitchell E. (1985) Professor** Biochemistry and Molecular Biology
 Assistant Dean for Graduate Studies
 Adjunct Faculty, Biological Sciences
 B.S., 1976, University of North Carolina, Chapel Hill;
 M.S., 1978, Western Carolina University;
 Ph.D., 1983, Wake Forest University, Bowman Gray School of
 Medicine.
- Rowe, Brian P. (1981) Professor** Physiology
 B.Sc., 1974 and Ph.D., 1977, University of Southampton, England.
- Rusinol, Antonio E. (1996) Assistant Professor** Biochemistry and Molecular
 Biology
 B.Sc., 1983 and Ph.D., 1990, National University of Tucuman,
 Tucuman, Argentina.
- Schambra, Uta B. (1993) Assistant Professor** Anatomy and Cell Biology
 B.S., 1960, Apothekerkammer, Kassel, Germany;
 M.S., 1965, Niedersachsischer Sozialminister, Hanover, Germany;
 Ph.D., 1988, University of North Carolina, Chapel Hill.
- Schoborg, Robert V. (1994) Associate Professor** Microbiology
 B.S., 1985, Oklahoma State University;
 Ph.D., 1991, University of Missouri, Columbia.
- Schweitzer, John B. (1999) Professor** Chair, Pathology
 B.S., 1974, Washington University;
 M.D., 1978, Washington University School of Medicine.
- Sinensky, Michael (1995) Professor** Chair, Biochemistry and
 Molecular Biology
 Adjunct Faculty, Internal Medicine
 B.A., 1966, Columbia College;
 Ph.D., 1972, Harvard University.
- Singh, Krishna (2002) Associate Professor** Physiology
 B.S., 1980, Maharishi Dayanand University, Rohtak, India;
 M.S., 1983, and Ph.D., 1987, Haryana Agril University, Hisar, India.
- Singh, Mahipal (2002) Associate Professor** Physiology
 B.S., 1977, Kurukshetra University, Kurukshetra, India;
 M.S., 1980, Haryana Agricultural University, Hisar, India;
 Ph.D., 1993, McGill University, Montreal, Canada.
- Stanton, Paul E. Jr. (1985) Professor** Surgery
 University President
 Adjunct Faculty, Adult Nursing
 B.A., 1965, Emory University;
 M.D., 1969, Medical College of Georgia.
- Stone, William L. (1989) Professor** Pediatrics
 Adjunct Faculty, Anatomy and Cell Biology/Physiology/Biochemistry
 B.S., 1966, State University of New York- Stony Brook;
 M.S., 1968, Marshall University;
 Ph.D., 1972, State University of New York- Stony Brook.
- Thewke, Douglas P. (1996) Assistant Professor** Biochemistry
 and Molecular Biology
 M.Sc., 1990, Central University of Pondicherry;
 M.Phil., 1992 and Ph.D., 1995, Central University of Hyderabad.
- Trent, Stephen (2002) Assistant Professor** Microbiology
 B.A., 1994, University of Virginia;
 Ph.D., 1998, East Tennessee State University, Quillen College of
 Medicine.
- Turner, Barbara B. (1982) Professor** Physiology
 Adjunct Faculty, Psychiatry
 B.A., 1967 and M.A., 1970, Immaculate Heart College;
 Ph.D., 1974, University of California, Los Angeles.
- Turner, Kevin L. (2003) Assistant Professor** Family Medicine
 B.S., 1996, Maryville College, Maryville, Tennessee;
 M.D., 2000, East Tennessee State University, Quillen College of
 Medicine.
- Walker, Elaine S. (1993) Clinical Assistant Professor** Internal Medicine
 B.S., 1979, North Dakota State University, Fargo, North Dakota;
 Ph.D., 1988, University of North Carolina-Chapel Hill.
- Williams, Carole A. (1980) Professor** Physiology
 A.B., 1969, Albertus Magnus College;
 Ph.D., 1977, St. Louis University.

- Williams, David L. (1991) Professor** **Surgery**
Adjunct Faculty, Pharmacology
B.S., 1974, Kentucky Wesleyan College;
Ph.D., 1985, Tulane University.
ETSU Distinguished Faculty Award, 1997.
- Wondergem, Robert (1978) Professor** **Physiology**
B.S., 1972, Calvin College;
Ph.D., 1977, The Medical College of Wisconsin.
- Woodruff, Michael L. (1979) Professor** **Anatomy and Cell Biology**
Vice Provost for Research and Sponsored Programs/Executive Director,
ETSU Research Foundation
B.A., 1969, University of Michigan;
M.S., 1971 and Ph.D., 1973, University of Florida.
ETSU Foundation Research Award, 1990.
- Wyrick, Priscilla B. (2000) Professor** **Chair, Microbiology**
B.S., 1963, M.S., 1967 and Ph.D., 1971, University of North Carolina.
- Youngberg, George A. (1980) Professor** **Pathology**
Adjunct Faculty, Internal Medicine
B.A., 1973, Lake Forest College;
M.D., 1977, Northwestern University Medical School.
- Zou, Yue (2001) Associate Professor** **Biochemistry & Molecular Biology**
B.S., 1982, Chengdu University of Science and Technology, China;
M.S., 1985, Dalian Institute of Chemical Physics, Chinese Academy of
Sciences;
Ph.D., 1991, Clark University, Worcester, Massachusetts.
- ### COLLEGE OF NURSING
- Alley, Nancy M. (1972) Professor** **Family/Community Nursing**
Executive Associate Dean, College of Nursing
B.S.N., 1968, Medical College of Virginia;
M.S., 1972, Virginia Commonwealth University;
Ph.D., 1987, University of Tennessee-Knoxville.
- Blowers, Sally S. (1995) Associate Professor** **Adult Nursing**
B.S.N., 1966, Columbia University;
M.S., 1969, University of Rochester;
Ph.D., 1996, University of Tennessee-Knoxville.
- Dunham-Taylor, Janne (1998) Professor** **Chair, Adult Nursing**
B.S., 1968, Michigan State University;
M.S., 1975 and Ph.D., 1982, University of Michigan.
- Edwards, Joellen B. (1989) Professor** **Family/Community Nursing**
Dean, College of Nursing
B.S.N., 1979, Ohio University;
M.S.N., 1982, West Virginia University;
Ph.D., 1988, Ohio University.
- Gerding, Gail A. (2003) Assistant Professor** **Family/Community Nursing**
B.S.N., 1983, Mobile College;
M.S., 1990 and Ph.D., 2002, Ohio State University.
- Ghaffari, Masoud (2002) Assistant Professor** **Adult Nursing**
B.Sc., 1978, Institute of Paramedical Sciences;
M.Ed., 1996, Cleveland State University;
M.S.N./B.S.N., 1999, University of Akron;
Ph.D., 2001, Cleveland State University.
- Hayes, Patricia A. (1999) Assistant Professor** **Adult Nursing**
B.S.N., 1981, Grand View College;
M.S., 1985, University of Minnesota;
Ph.D., 1997, Georgia State University.
- Kerley, Linda J. (1981) Associate Professor** **Adult Nursing**
B.S., 1964 and M.A., 1965, Appalachian State University;
B.S.N., 1978, East Tennessee State University;
M.S.N., 1983, University of North Carolina- Greensboro;
Ph.D., 1993, University of Texas-Austin.
- King, Marjorie S. (1993) Associate Professor** **Professional Roles/
Mental Health Nursing**
B.S.N., 1970, Duquesne University;
M.N.Ed., 1976, University of Pittsburgh;
Ed.D., 1998, East Tennessee State University.
- Lowry, Lois W. (1999) Professor** **Family/Community Nursing**
B.S.N., 1955, Cornell University;
M.N., 1977, University of Florida;
D.N.Sc., 1987, University of Pennsylvania.
- Macnee, Carol L. (1993) Professor** **Family/Community Nursing**
Director of Research
B.S.N., 1973, University of Michigan;
M.S.N., 1979, University of Virginia;
Ph.D., 1990, University of Michigan.
- Marrs, Jo-Ann S. (2002) Professor** **Chair, Professional Roles/
Mental Health Nursing**
B.S., 1972, M.S., 1977, M.S.N., 1987, and Ed.D., 1985, University of
Tennessee-Knoxville.
- May, Barbara A. (2000) Assistant Professor** **Professional Roles/
Mental Health Nursing**
B.S., 1967, California State University;
M.S., 1978, Drexel University;
B.S.N., 1983, Murray State University;
M.S.N., 1996, University of Iowa.
Ph.D., 2000, University of Tennessee-Knoxville.
- McCabe, Susan M. (1994) Associate Professor** **Professional Roles/
Mental Health Nursing**
B.S.N., 1982, Syracuse University;
M.S., 1988, Russell Sage College;
Ed.D., 1997, East Tennessee State University.
- McConnell, Peggy R. (1974) Assistant Professor** **Adult Nursing**
B.S.N., 1970, East Tennessee State University;
M.S.N., 1971, Emory University.
- McCook, Judy G. (1997) Associate Professor** **Family/
Community Nursing**
B.S.N., 1976, Medical College of Georgia;
M.S.N., 1979, University of Alabama, Birmingham.
Ph.D., 2002, University of Michigan-Ann Arbor.
- Quillin, Stephanie I. (1992) Associate Professor** **Family/
Community Nursing**
B.S.N., 1963, Capital University;
M.S., 1969, University of California, San Francisco;
Ph.D., 1983, Wayne State University.
- Ramsey, Priscilla W. (1990) Associate Professor** **Adult Nursing**
B.S., 1976 and M.S., 1979, Clemson University;
Ph.D., 1990, University of Virginia.
ETSU Distinguished Faculty Award. 2003.
- Rayman, Kathleen M. (1999) Assistant Professor** **Professional Roles/
Mental Health Nursing**
B.S.N., 1978, University of Pittsburgh;
M.S.N., 1987 and Ph.D., 1994, University of Virginia.
- Rice, Judith A. (1997) Assistant Professor** **Professional Roles/
Mental Health Nursing**
B.S., 1988, B.S.N., 1994 and M.S.N., 1996, East Tennessee State
University.
- Schaller-Ayers, Jennifer M. (2001) Associate Professor** **Family/
Community Nursing**
B.S., 1969, San Jose State College;
M.N.Sc., 1982, University of Arkansas for Medical Sciences;
Ph.D., 1994, Oregon Health Sciences University.
- Seymour, Rosalee J. (1993) Associate Professor** **Professional Roles/
Mental Health Nursing**
B.S.N., 1971, West Chester University;
M.S., 1980 and Ed.D., 1991, University of Delaware.
- Shell, Renee C. (1996) Assistant Professor** **Adult Nursing**
B.S.N., 1987, M.S.N., 1994, and Ed.D., 2000, East Tennessee State
University.
- Smith, Patricia L. (1990) Professor** **Professional Roles/
Mental Health Nursing**
Associate Dean, Academic Programs
B.S.N., 1964, Northwestern State University;
M.S.N., 1978, Medical College of Georgia;
Ed.D., 1989, University of Tennessee-Knoxville.
- Trumbley, Sharon G. (1993) Assistant Professor** **Family/
Community Nursing**
B.S.N., 1971, Columbia University;
M.S.N., 1977, Boston College.
- Wachs, Joy E. (1993) Professor** **Family/Community Nursing**
B.S.N., 1976 and M.S., 1980, University of Wisconsin;
Ph.D., 1986, University of Illinois-Chicago.
ETSU Distinguished Faculty Award, 2000.

Walls, Jennie E. (1993) Associate Professor Family/Community Nursing
B.S.N., 1972, East Tennessee State University;
M.S.N., 1976, University of Tennessee-Memphis.

Willock, Katherine M. (1998) Associate Professor Family/Community Nursing
B.A., 1973, Concordia College;
B.S.N., 1988, University of Texas-Arlington;
M.S., 1990, Texas Woman's University;
Ph.D., 1998, Kansas State University.

COLLEGE OF PUBLIC AND ALLIED HEALTH

Akin, Faith (1999) Assistant Professor Communicative Disorders
B.S., 1984, University of Tennessee-Knoxville;
M.S., 1987, University of Texas;
Ph.D., 1997, Vanderbilt University.

Anderson, James L. (2002) Assistant Professor Public Health
B.S., 1974, Walla Walla College;
M.D., 1977, and M.P.H., 1989, Loma Linda University;
Ph.D., 2002, University of Texas.

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University Honors Programs	James W. Boland, Ph.D., Director
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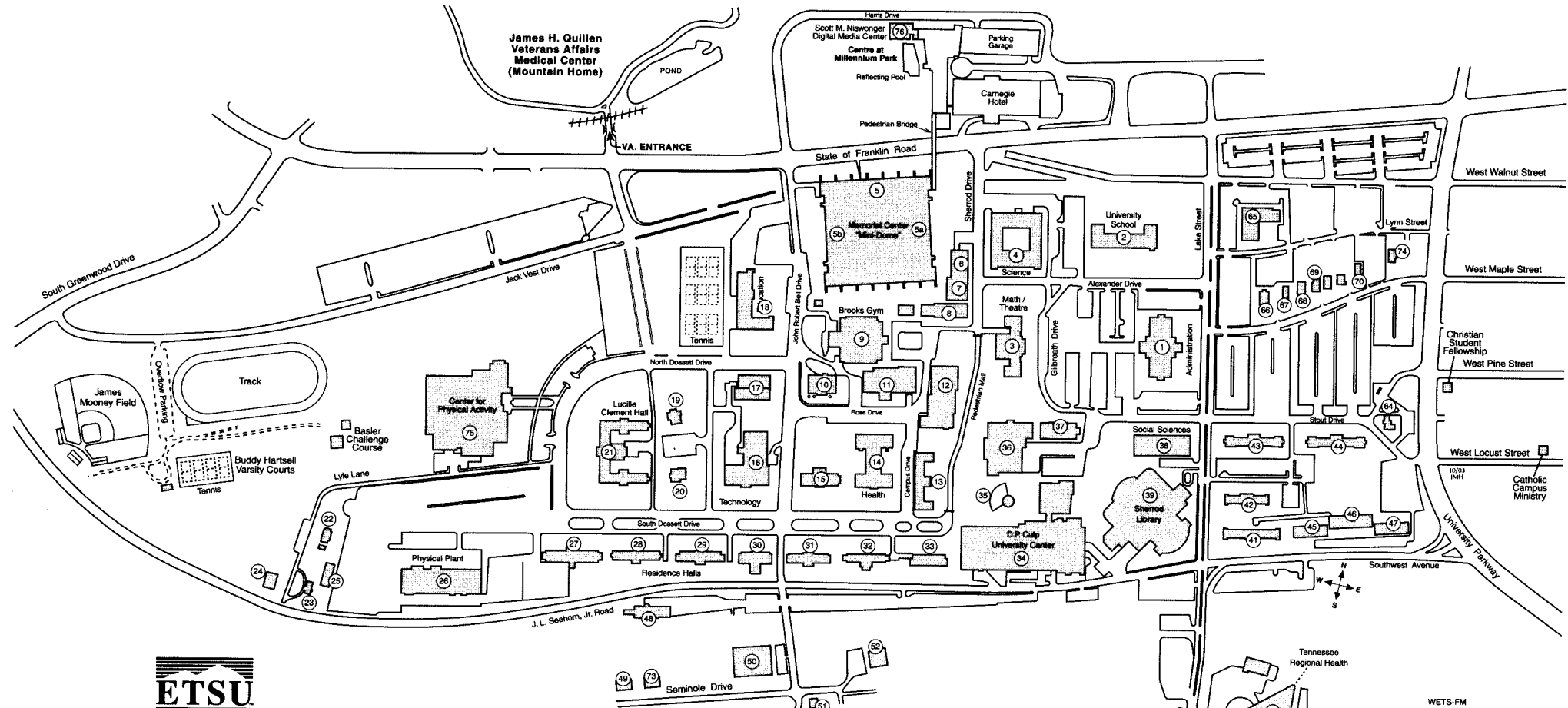
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- 39 Charles C. Sherron Library
- 41 Frank Clement Hall (Women's Residence Hall)
- 42 Ellington Hall (Women's Residence Hall)
- 43 McCord Hall (Men's Residence Hall)
- 44 Cooper Hall (Men's Residence Hall)
- 45-47 Davis Apartments (Men's Efficiency Apartments)
- 48 Art Annex
- 49 Log Cabin
- 50 Wesley Foundation
- 49 Presbyterian Campus Ministry
- 51 Baptist Collegiate Ministry

- 53-60 Buccaneer Village (Family/Graduate Housing)
- 61 Central Receiving and Physical Plant Warehouse
- 62 WETS-FM Public Radio Station
- 63 First Tennessee Regional Public Health Office
- 64 Information and Public Safety Building
- 65 ETSU Family Medicine Associates
- 66 School of Graduate Studies
- 67 Internal Audit
- 68 Division of Cross-Disciplinary Studies
- 69 Honors House
- 70 Office of Distance Education
- 71 Information Technology/Telecommunications
Head-end Building
- 72 Buccaneer Ridge Apartments
- 73 Tennessee's Early Intervention System
(College of Education)
- 74 School of Continuing Studies
- 75 Center for Physical Activity
- 76 Scott M. Niswonger Digital Media Center

The Harry D. Powell Observatory is located off Narrow Lane, south of campus.

The Frederick B. Warren-William B. Greene Jr. Golf Center is located adjacent to the Powell Observatory.

The Innovation Laboratory and the Tennessee Small Business Development Center are located at 2109 W. Market Street.

