

*Graduate
Catalog*
2009-2010



East Tennessee State University

East Tennessee State University

Johnson City, Tennessee

Vol. XCVI April 2009 No. 10

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 to award baccalaureate, master's, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, or call 404-679-4500, with any questions regarding the accreditation of East Tennessee State University.

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
Council of Graduate Schools
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
Atlantic Sun Conference

POSTMASTER: send address changes to:

East Tennessee State University
School of Graduate Studies
Box 70720
Johnson City, Tennessee 37614-1707

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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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Tobacco-Free ETSU

East Tennessee State University promotes a healthy, sanitary environment free from tobacco smoke and tobacco-related debris. The ETSU faculty, staff, students, and administration acknowledge that long-term health hazards may accrue to people who use tobacco products or who are subjected to second-hand smoke. The university's failure to address the use of tobacco products on campus would constitute a violation of the Americans with Disability Act and the Vocational Rehabilitation Act, as well as Tennessee law.

This policy, therefore, prohibits the use of tobacco products in all university buildings, on university grounds, and in state-owned vehicles unless exceptions are stated in this policy, which is applicable to all university sites/off-campus locations.

This policy is in effect 24 hours a day, year round, regardless of whether classes are in session. Violations of the policy will be dealt with in a manner that is consistent with university procedures. There shall be no reprisals against anyone reporting violations of this policy.

Exceptions — The use of all tobacco products shall be permitted in private vehicles only.

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 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 2005-2010 Planning Cycle

1. Demonstrate leadership for our region by
 - promoting and enhancing P-16 education,
 - enhancing workforce development for the health professions,
 - establishing successful technology-based start-up and spin-off companies through the ETSU Innovation Laboratory,
 - enhancing students' active development of civic responsibility,
 - pursuing the use of advanced technologies, and
 - expanding externally-funded research.
2. Enhancing the rate and diversity of participation in higher education by
 - increasing the rate of participation of targeted student populations, and
 - designing and implementing a multi-variant review model for consonance between student and/or employer demand.
3. Demonstrate quality of programs and services by
 - implementing campus-wide quality institutional effectiveness initiatives,
 - providing general education, academic programs and co-curricular opportunities that meet high standards of quality,
 - enhancing civic responsibility and student engagement,
 - recruiting, retaining, and developing faculty and staff diversity,
 - increasing student retention and persistence to graduation, and
 - continued implementation of our SACS Quality Enhancement Plan for student success.
4. Demonstrate successful management of resources by expanding use of nationally recognized databases or benchmarking tools to inform resource management,
 - increasing awareness and commitment to philanthropic fund-raising projects,
 - promoting entrepreneurial and partnership initiatives to attain additional resources, and
 - striving to achieve optimal efficiency in its use of resources.

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 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 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.

Graduate 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 School of Graduate Studies, P.O. Box 70720, Phone: (423) 439-4221.

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 70733, 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, P.O. Box 70725, Culp University Center.

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 (3) 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, Tennessee 37614-1702. The report can be accessed via the Internet at http://www.etsu.edu/dps/security_report.asp.

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 (SGA), 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 2009-2010

FALL TERM 2009

Apr. 30* 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. 29-30 No Registration (including *GoldLink*)
 *See <http://www.etsu.edu/registration/> for complete registration information.
 Aug. 31 Classes begin
 Sept. 10 Last day to late register or late add a course
 Sept. 7 Labor Day holiday
 Sept. 11 Last day to drop a course without a grade of "W"
 Sept. 14 Last day for graduate students to file intents to graduate, committee forms, and forms for candidacy and programs of study for Dec. 2009 graduation
 Oct. 19-20 Fall Break
 Oct. 26 Last day to schedule oral exams with the Graduate Office for Dec. 2009 graduation
 Oct. 26 Last day to drop a course without dean's permission
 Nov. 9 Last day to complete oral examinations for December graduation
 Nov. 16 Last day to file initial review copies of theses and dissertations with the Graduate Office for Dec. 2009 graduation
 Nov. 26-27 Thanksgiving holidays
 Dec. 9 Last day to withdraw from the university
 Dec. 11 Last day of classes
 Dec. 12-17 Final examinations
 Dec. 14 Last day to pay microfilming fees in the Office of the Comptroller
 Dec. 16 Last day to file final copies of theses and dissertations with the Graduate Office
 Dec. 19 Commencement

SPRING TERM 2010

Sept. 30* 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. 12-13 No Registration (including *GoldLink*)
 *See <http://www.etsu.edu/registration/> for complete registration information.
 Jan. 14 Classes begin
 Jan. 18 Martin Luther King holiday
 Jan. 20 Last day to late register or late add a course
 Jan. 25 Last day for graduate students to file intents to graduate, Committee forms, and forms for candidacy and programs of study for May 2010 graduation
 Jan. 27 Last day to drop a course without a grade of "W"
 March 8-13 Spring Break
 March 10 Last day to drop a course
 March 15 Last day to schedule oral exams with the Graduate Office for May 2010 graduation
 March 29 Last day to complete oral examinations for May graduation
 April 5 Last day to file initial review copies of theses and dissertations with the Graduate Office for May 2010 graduation
 April 2 Flexible Day - university closed
 April 28 Last day to withdraw from the university
 April 30 Last day of classes
 May 1-6 Final examinations
 May 3 Last day to pay microfilming fees in the Office of the Comptroller
 May 5 Last day to file final copies of theses and dissertations with the Graduate Office
 May 8 Commencement

*Individual graduate programs may have earlier application deadlines. Please see program admission requirements in catalog.

SUMMER TERM 2010

*See <http://www.etsu.edu/registration/> for complete registration information.

Pre-Summer, May 17 - June 4

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)
 April 5 Registration Begins
 May 17 Classes begin
 *Individual graduate programs may have earlier application deadlines. Please see program admission requirements in catalog.
 May 18 Last day to late register or late add a Pre-Summer course
 May 21 Last day to drop a course without grade of "W"
 May 27 Last day to drop a course without dean's permission
 May 31 Memorial Day holiday
 June 2 Last day to withdraw
 June 4 Last day of classes

Complete Session, May 17 - August 13

Dual Session, June 7 - August 13

Session 1, June 7 - July 9

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)
 April 5 Registration Begins
 June 7 Classes begin
 June 9 Last day to late register or late add a Session 1 course
 June 11 Last day for graduate students to file intents to graduate, committee forms, candidacy forms and programs of study for Aug. 2010 graduation
 June 10 Last day to late register or late add a Dual Session course
 June 11 Last day to drop a course without grade of "W" Session 1
 June 18 Last day to drop a course without grade of "W" Dual Session
 June 25 Last day to drop a Session 1 course without dean's permission
 June 21 Last day to schedule oral exams with the Graduate Office for Aug. 2010 graduation
 July 7 Last day to withdraw Session 1
 July 5 Independence Day holiday
 July 9 Last day of Session 1

Session 2, July 12 - August 13

April 5 Registration Begins
 July 5 Last day to complete oral examinations for August graduation
 July 9 Last day to file initial review copies of theses and dissertations with the Graduate Office for Aug. 2010 graduation
 July 12 Classes begin
 July 14 Last day to late register or late add a Session 2 course
 July 16 Last day to drop a course without grade of "W" Session 2
 July 30 Last day to drop a Session 2 course without dean's permission
 Aug. 11 Last day to pay microfilming fees in the Office of the Comptroller
 Aug. 11 Last day to withdraw Session 2 and Dual Session
 Aug. 13 Last day to file final copies of theses and dissertations with the Graduate Office for August 2010 graduation.

*Individual graduate programs may have earlier application deadlines. Please see program admission requirements in catalog.

**The Graduate Council
Voting Members**

Judith Anderson, Ph.D.	College of Nursing
Dave Arnall	Member-at-Large
Stacey D. Brown	The Bill Gatton College of Pharmacy
William Scott Champney, Ph.D.	College of Medicine
Wallace Dixon, Ph.D.	Member-at-Large
Mark Ellis, M.S.L.S.	Library
Helene Halvorson, Ph.D.	Member-at-Large
Don Hoover, Ph.D.	College of Medicine
Martha Pointer, Ph.D.	College of Business and Technology
Jenny Reed	Graduate Student, Member-at-Large
Jasmine Renner, Ph.D.	College of Education
Robert Sawyer, Ph.D.	College of Arts and Sciences
Phillip Scheuerman, Ph.D.	College of Public Health
Marie Tedesco, Ph.D.	School of Continuing Studies
Paul Trogen, Ph.D.	Faculty Senate
Ester L. Verhovsek, Ed.D.	College of Clinical and Rehabilitative Health Sciences

Nonvoting Members

Cecilia A. McIntosh, Ph.D.	Dean of the School of Graduate Studies
Jeffrey P. Beck, Ph.D.	Associate Dean of the School of Graduate Studies
Maria Costa	International Programs
William Duncan, Ph.D.	Vice Provost for Research and Sponsored Programs
F. Wayne Gillespie, Ph.D.	Assistant Dean of the School of Graduate Studies
LaDonna Hutchins	Office of the Registrar
Billie Lancaster	Office of the Registrar
Mary Ellen Musick	Office of Planning and Analysis, Data Management

Graduate Coordinators

College of Arts and Sciences

Dr. Gordon Anderson, Dean

Art - Patricia Mink
 Biological Sciences
 Biology - Dr. Mike Zavada
 Microbiology - Dr. Eric L. Mustain
 Paleontology - Dr. Blaine Schubert
 Chemistry - Dr. Chu-Ngi Ho
 City Management, Public Administration
 Communication, Professional - Dr. Jack Mooney
 Criminal Justice and Criminology - Dr. Steven Ellwanger
 English - Dr. Robert Sawyer
 Teaching English as a Second Language – Dr. Theresa McGarry
 History - Dr. Mel Page
 Mathematics - Dr. Robert Gardner
 Psychology
 Clinical - Dr. Peggy Cantrell
 General - Dr. Russ Brown
 Public Administration - Dr. David Briley
 Social Work - Dr. Helene Halvorson
 Sociology - Dr. Leslie McCallister
 Urban Planning and Economic Development
 Certificate - Dr. David Briley

College of Business and Technology

Dr. Linda R. Garceau, Dean

Dr. Martha Pointer, Associate Dean for Graduate Studies

Accountancy - Dr. Gary Burkette
 Business Administration, Graduate Certificate - Dr. Martha M. Pointer
 Business Administration (M.B.A.) - Dr. Martha M. Pointer
 Clinical Nutrition - Ms. Elizabeth Lowe
 Computer Science - Dr. Martin Barrett; Dr. Phillip Pfeiffer
 Emerging Technologies Certificate - Dr. Martin Barrett
 Entrepreneurial Leadership Certificate - Dr. Andrew Czuchry
 Technology (Digital Media) - Ms. Cher Cornett
 Technology (Engineering) – Dr. Andy Clark
 Technology (Geoscience) - Dr. Hugh Broome

College of Clinical and Rehabilitative Health Sciences

Dr. Nancy J. Scherer, Dean

Allied Health – Dr. Ester L. Verhovsek
 Communicative Disorders
 Audiology - Dr. Patricia Chase
 Speech Pathology - Dr. Vijay Guntupalli
 Physical Therapy - Dr. Susan Epps

Claudius G. Clemmer College of Education

Dr. Hal Knight, Dean

Educational Media and Technology
 Educational Communications and Technology
 Concentration - Dr. Harold Lee Daniels
 School Library Media Concentration – Dr. Linda Steele
 Library Concentration - Dr. Linda Steele
 Elementary Education - Dr. Leslie Perry
 Secondary Education - Dr. Tammy Barnes
 M.A.T. (Teacher Education with Multiple Levels) – Dr. Aimee Govett
 and Dr. Tammy Barnes

Claudius G. Clemmer College of Education (continued)

Reading/Storytelling - Dr. Joseph Sobol
 Advanced Studies in Teaching and Learning (RODP)-Dr. Martha Collins
 Educational Leadership and Policy Analysis
 Administrative Endorsement Concentration - Dr. Eric Glover
 Post-Secondary, and Private Leadership - Dr. Jim Lampley
 Teacher and Classroom Leadership - Dr. Virginia Foley
 Counseling Leadership Concentration - Dr. Janna Scarborough
 School Leadership Concentration - Dr. Pam Scott
 Counseling - Dr. Clifton Mitchell
 Early Childhood - Dr. Pamela Evanshen, Dr. Amy Malkus
 Kinesiology, Leisure, and Sport Sciences
 Physical Education K-12 - Dr. Diana Mozen
 Exercise Physiology and Performance - Dr. Michael Stone
 Sport Management - Dr. Keunsu Han
 Special Education - Dr. James Fox

James H. Quillen College of Medicine

Dr. Philip C. Bagnell, Dean

Dr. Mitchell E. Robinson, Associate Dean for Graduate Studies

Anatomy and Cell Biology - Dr. Dennis DeFoe
 Biochemistry - Dr. Yue Zou
 Biomedical Sciences - Dr. Mitchell E. Robinson
 Microbiology – Dr. Rob Schoborg
 Pharmacology - Dr. Alok Agrawal
 Physiology - Dr. Tom Ecay

College of Nursing

Dr. Wendy M. Nehring, Dean

Ph.D. in Nursing – Dr. Judith Anderson
 M.S.N. – Dr. Kathy Martin
 Family Nurse Practitioner - Dr. Linda Garrett
 Nursing Administration/Clinical Nurse
 Leader Programs – Dr. Kathy Martin
 Regents Online Degree Program - Dr. Nancy Granberry

Bill Gatton College of Pharmacy

Dr. Larry D. Calhoun, Dean

College of Public Health

Dr. Randolph F. Wykoff, Dean

Biostatistics – Dr. James Anderson
 Community Health – Dr. James Florence
 Environmental Health - Dr. Kurt Maier
 Epidemiology Concentration and Epidemiology
 Certificate - Dr. James Anderson
 Gerontology Certificate - Dr. James Florence
 Health Care Management Certificate - Dr. Brian Martin
 Health Services Administration - Dr. Amal Khoury
 Rural Health Graduate Certificate – Dr. Mary Ann Littleton
 Dr.P.H., Community Health, and Epidemiology - Dr. Rob Pack

School of Continuing Studies

Dr. Norma MacRae, Dean

Liberal Studies - Dr. Marie Tedesco
 Archival Studies Certificate - Dr. Marie Tedesco
 Professional Studies - Dr. Jo Lobertini

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;
- Interdependent 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 Program Specialists

Each graduate program or major is represented by a Graduate Program Specialist 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 program specialist listed below. Non-degree student applications are processed by Ms. Fiona Goodyear, goodyear@etsu.edu, (423) 439-4707.

Mary Duncan	duncanm@etsu.edu (423) 439-4302	Allied Health, Environmental Health, Physical Therapy, Public Health, and four (4) certificate programs: Biostatistics, Epidemiology, Gerontology, and Health Care Management.
Judy Lawson	lawsonj@etsu.edu (423) 439-6590	M.B.A., Accounting, all degrees in Educational Leadership and Policy Analysis, Social Work, and two (2) certificate programs: Business Administration, Entrepreneurial Leadership
Robin O'Dell	odell@etsu.edu (423) 439-6148	Counseling, Early Childhood Education, Elementary and Secondary Education, M.A.T., Educational Media and Technology, Reading/Storytelling, Special Education, and Advanced Studies in Teaching and Learning (RODP)
Gail Powers	powers@etsu.edu (423) 439-4703	Art, Biological Sciences, Chemistry, Clinical Nutrition, English, History, Mathematics, Microbiology, Communications (Professional), Sociology, Psychology, Technology, Liberal Studies, Professional Studies and two (2) certificate programs: Archival Studies and Emerging Technology
Shella Bennett	bennetsg@etsu.edu (423) 439-4708	Audiology, Biomedical Sciences, Computer Science, Speech Pathology, Emerging Technology Certificate
Rene Palumbo	palumbo@etsu.edu (423) 439-6158	Kinesiology, Liberal Studies, Nursing, Public Administration, Technology, and four (4) certificate programs: Advanced Nursing Practice, Archival Studies, Economic Development, and Urban Planning

Graduate Degree Programs, Concentrations, and Certificates

Field of Study	Degree	Field of Study	Degree
Accounting	M.Acc.	Environmental Health	M.P.H., M.S.E.H.
Allied Health	M.S.A.H.	Administrative Program	
Archival Studies	*Certificate	Specialist Program	
Art	M.A.	Environmental Health Sciences	Ph.D.
Art History		Epidemiology	*Certificate
Studio Art		Gerontology	*Certificate
Art	M.F.A.	Health Care Management	*Certificate
Studio Art		History	M.A.
Audiology	Au.D.	Kinesiology, Leisure and Sport Sciences	M.A.
Biology	M.S.	Exercise Physiology and Performance	
Biology		Physical Education K - 12	
Microbiology		Sports Management	
Paleontology		Liberal Studies	M.A.L.S.
Biomedical Sciences	M.S. and Ph.D.	Archival Studies	
Anatomy		Mathematical Sciences	M.S.
Biochemistry		Precollegiate Mathematics	
Microbiology		Nursing	M.S.N. and Ph.D.
Pharmacology		Nursing, Advanced Nursing Practice	Certificate
Physiology		Pharmacy	Pharm.D.
Biostatistics	Certificate	Physical Therapy	D.P.T.
Business Administration	M.B.A.	Professional Studies (RODP)	M.P.S.
Business Administration	Certificate	Psychology	
Chemistry	M.S.	Clinical	M.A., Ph.D.
Clinical Nutrition	M.S.	General	M.A.
Communication, Professional	M.A.	Public Administration	M.C.M. and M.P.A.
Communicative Disorders	M.S.	City Management	
Speech Pathology		Not-for-Profit Administration	
Computer and Information Science	M.S.	Planning and Development	
Applied Computer Science		Public Financial Management	
Information Technology		Public Health	M.P.H.
Counseling	M.A.	Biostatistics	
Community Agency Counseling		Environmental Health	
Elementary and Secondary School		Epidemiology	
Higher Education		Health Services Administration	
Marriage and Family Therapy		Community Health	
Criminal Justice	M.A.	Public Health	Dr.P.H.
Early Childhood Education	M.A.	Community Health	
Early Childhood		Epidemiology	
Early Childhood Teaching		Reading	M.A.
Economic Development	Certificate	Reading Education	
Educational Leadership and Policy Analysis	Ed.D.	Storytelling	
Administrative Endorsement		Rural Health	Certificate
Classroom Leadership		Secondary Education	M.Ed.
Postsecondary Leadership		Social Work	M.S.W.
School Leadership		Advanced Standing	
Educational Leadership and Policy Analysis	Ed.S.	Traditional Entry	
Administrative Endorsement		Sociology and Anthropology	M.A.
Counseling Leadership		Applied	
Teacher Leadership		General	
School System Leadership		Special Education	M.Ed.
Educational Leadership and Policy Analysis	M.Ed.	Advanced Practitioner	
Administrative Endorsement		Early Childhood Special Education	
Educational Media and Educational Technology	M.Ed.	Special Education	
Educational Communications and Technology		Teaching and Learning, Advanced Studies	M.Ed.
School Library		Teaching English as a Second Language	Certificate
Elementary Education	M.Ed.	Teacher Education with Multiple Levels	M.A.T.
Emerging Technologies	Certificate	Technology	M.S.
English	M.A.	Digital Media	
Entrepreneurial Leadership	Certificate	Engineering	
		Geoscience	
		Urban Planning	Certificate

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://goldlink.etsu.edu>.

Applications for admission must be approved by the last day of registration (official census date) of a semester in order to be effective for that semester.

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 from each undergraduate or graduate institution attended, except previous coursework taken at ETSU. Applications will not be considered without all transcripts.
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 from each undergraduate or graduate institution attended, except previous coursework taken at ETSU. Applications will not be considered without all transcripts.
4. A personal essay.
5. A photostatic copy of the teaching certificate.
6. Four (4) 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 from each undergraduate or graduate institution attended, except previous coursework taken at ETSU. Applications will not be considered without all transcripts.
4. A personal essay.
5. Official scores on the general portion of the Graduate Record Examination (GRE).
6. Three (3) 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 various grading scales. European students with three-year Bologna bachelor's degrees and Indian students with three-year bachelor's degrees from Indian universities ranked A (3.01-

4.0) through the NAAC accreditation process will be considered to have equivalent four-year degrees. The B average requirement on various grading scales 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 1st and upper 2nd 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: April 29 - fall semester; September 30 - 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 marksheets 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 79 (Internet-based), 550 (paper-based) 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 immediately upon their arrival at ETSU.)
5. Documented evidence of financial resources sufficient to support the student with at least U.S. \$22,242 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 DS-2019 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 are missing, such as required standardized testing, sufficient letters of recommendation, or in the case of international students, proof of an equivalent U.S. accredited undergraduate degrees.

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 or graduate certificate 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.

Criminal Background Investigation

In Tennessee and nationally, due to legislative and accreditation requirements, many schools, childcare, and health care facilities require that students in health-related professions be required to submit to a Criminal Background Investigation (CBI) before participating in any educational/patient care activities at their sites. These educational/clinical activities are an essential requirement for graduation or subsequent

licensure and the inability to complete this requirement may result in a student's failure to meet the graduation requirements of certain ETSU College of Public Health and College of Clinical and Rehabilitative Health Sciences programs. Students must be aware that they will be required to do the following:

1. Truthfully answer all questions, including those pertaining to felony convictions, on the student undergraduate or graduate application. Students who do not answer the questions truthfully and completely shall not be eligible for acceptance or enrollment. Discovery that the section dealing with felony convictions was not completely or truthfully answered by an enrolled student may result in dismissal.
2. Complete a CBI prior to participating in internship, field placement, or cooperative experiences at an affiliated institution that requires a CBI, as determined by the academic department.
3. Notify the Program Chair of any criminal charges within five (5) working days of their occurrence during enrollment in the program. Failure to notify the Chair of such events may result in immediate dismissal.
4. Check departmental guidelines for procedures for obtaining the CBI.

Requirements for Entering Teacher Training Programs

1. All students wishing to enter approved teacher training programs shall be required to:
 - A. Agree to the release of all investigative records to the administrator of the selected teacher training program;
 - B. Supply a fingerprint sample and submit to a criminal history records check to be conducted by the Tennessee Bureau of Investigation (TBI); and
 - C. Sign an authorization and release form provided by the department or board, authorizing a qualified Tennessee licensed private investigation company by and on behalf of the board to complete a criminal history records check.
2. As used in subdivision (a)(l), "qualified Tennessee licensed private investigation company" means a company that is licensed by the department of commerce and insurance, insured with at least three million dollars (\$3,000,000) worth of errors and omissions insurance and carries sufficient indemnification coverage.
3. Any reasonable costs incurred by the TBI in conducting an investigation of an applicant shall be paid by the applicant. The applicant shall be provided a copy of all criminal history records check documentation. In lieu of additional criminal history records checks for subsequent applications to the selected teacher training program, the applicant may submit copies of the applicant's initial criminal history records check documentation and shall not be required to pay any additional costs.
4. Any criminal history records check performed pursuant to this section shall not be submitted and used for the criminal history records check required under ' 49-5-4 13 for employment by an LEA or child care program as defined in ' 49-1-1 102. [Acts 2007, ch. 454, ' 1.]

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, until an 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 co-listed 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 at 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 each 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 - It is expected that students will attend class regularly and provide the faculty with a reason for any absence. *Failure to attend class regularly can affect students' grades and financial aid.* East Tennessee State University does not specify a fixed number of class absences as university-wide policy, but each department within the university has the right to set a maximum number of absences (including absences due to university activities and illnesses) permitted during an academic term. Departmental class absence policy is subject to approval by the dean of

the school/college. At the beginning of the course each faculty member must provide a written statement governing attendance policy (including laboratory/clinical sessions where applicable) for the course so that all students may be fully informed of their attendance responsibilities, including penalties that may be imposed for failing to meet these responsibilities. If a student is not in attendance during the class meeting in which the class attendance policy is discussed it is the student's responsibility to ascertain the policy in that class.

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. Special course fees may be required.

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 and the Bill Gatton College of Pharmacy 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 by the Dean of the School of Graduate Studies. 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:

Grades	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 (GPA) 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 (GPA). An overall GPA 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. 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/Dissertations 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 following semester, including summer. The “U” is equivalent to an “F”. The first “U” does not affect the GPA, however, all subsequent “U” grades will convert to an “F” and will be figured into the GPA.

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. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GPA of 3.0 after one semester may be subject to dismissal without a probationary term. 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, 103 Earnest House.

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 no 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 the deadlines for both international students and U.S. Residents.
2. Test Scores GMAT (M.B.A. and M.Acc. Students) GRE (if required by department)	2. TOEFL/IELTS/GMAT/GRE scores should be submitted with the TOEFL or IELTS (International students) graduate 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 (9) hours in the graduate program have been completed.
5. Preliminary and qualifying examination.	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. Master Degree 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 Degree Students: Consult the appropriate section of the 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 of 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 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**

Graduate Certificate	4-6 years	Specialist Degree	5 years
Master’s Degree	6 years	Doctoral Degree	7 years*

**(5 years for persons previously awarded an 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: Most forms for the required steps outlined above are available on the Internet at <http://www.etsu.edu/gradstud/forms.asp> and in the School of Graduate Studies office, Burgin Dossett Hall, Suite 309, Johnson City, Tennessee.

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 (2) options (not all programs offer both options):

- A. **Thesis Option**—minimum of 30 credit hours of graduate coursework (including at three (3) hours of credit for the thesis).
- B. **Non-thesis Option**—minimum of 33 credit hours of graduate coursework including a research requirement to be satisfied by one (1) 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.
 - i. Courses designated to satisfy the research requirement must be approved by the Graduate Council.
 - ii. 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 the student's discipline. Assessment of a student's performance shall be made by a committee established for that purpose consisting of a minimum of three (3) 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 (1) of three (3) categories. They 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 (3) 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 the graduate program coordinator or advisor as assigned at the time of admission. Students should form the 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 the program of study and research. It must be composed of at least three (3) faculty members 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 at the School of 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 (1) 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 (1) 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 the thesis 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 Educational Leadership and Policy analysis in this catalog.

Doctoral Degree Requirements

- Requirements for the Ph.D. degree are included under Biomedical Sciences, Clinical Psychology, Early Childhood, Environmental Health, Kinesiology, and Nursing sections in this catalog.
- Requirements for the Au.D. are included under Communicative Disorders in this catalog.
- Requirements for the D.P.T. are included in the Physical Therapy section in this catalog.
- Requirements for the Ed.D. are included under Educational Leadership and Policy Analysis in this catalog.
- Requirements for the Dr.P.H. degree are included in the Public Health sections 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, a new Intent Form must be completed and submitted prior to the published deadline (see Academic Calendar).

Matriculation Limits

The time limit for the use of credit toward a certificate is four (4) to six (6) years. The time limit for the master's degree is six (6) years. For the education specialist degree, the time limit is five (5) 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 begin a program after a bachelor's or master's degree is seven (7) 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 the 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 coursework 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 deadline 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*. Tuition and fees of the university are subject to change at any time by the Tennessee Board of Regents.

Application Fee—All applications for admission to Graduate School must be accompanied by a \$25 domestic, \$35 international, application fee. The application fee is nonrefundable.

Graduate In-State Tuition—\$305 per semester hour, in addition to other fees.*

Graduate Out-of-State Tuition—\$473 per semester hour, in addition to other fees.*

Auditing Fees—The fees are the same as regular tuition.

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

Summer Fees—The summer semester is divided into two (2) sessions, each five (5) 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 day the second session begins. Summer maintenance fees are assessed per credit hour with no maximum.

* Tuition and fees are subject to change. For the most current information, please contact the Office of the Bursar.

In-State Tuition for Residents of Bordering Counties

Residents of Avery, Madison, Mitchell, Yancey, and Watauga counties in North Carolina, and residents of Lee, Scott, and Washington counties in Virginia may request an in-state tuition rate. To be considered for the special rate, students should be fully admitted to the School of Graduate Studies, and for the in-state rate to be renewed, the students must remain in good academic standing. This fee waiver is NOT applicable to the James H. Quillen College of Medicine or the College of Pharmacy. To obtain the in-state tuition rate, students must file a request form by census date (the 14th day of classes) for the semester in which the reduced tuition is sought. The form is available at <http://www.etsu.edu/gradstud/forms.asp> (under Residency). In-State Tuition requests filed after this date will be considered for the following semester. Students may also be asked to provide documentation concerning their place of residence.

In-State and Out-of-State Tuition Regulations for Classifying Students

Excerpted from TBR Policy No. 34:05:01:00

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 inter-sessions 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

(subject to change without notice)

Family and Graduate Housing

(Apartment rents listed below are 2008-2009 prices and includes all utilities.)

Buccaneer Village Apartments

Deposit	\$150.00
Rent	
Efficiencies	\$1,750/semester
One bedroom	\$1,905/semester
Two bedroom	\$2,135/semester

Buccaneer Ridge Apartments (Phase I)

Deposit	\$150.00
Rent (per person)	
Two bedroom—academic year lease	\$2,650 per semester/per person
Two bedroom—extended (12 month) lease	\$2,290 per semester/per person
Four bedroom—academic year lease	\$2,390 per semester/per person
Four bedroom—extended (12 month lease)	\$2,035 per semester/per person

Buccaneer Ridge Apartments (Phase II)

Deposit	\$150.00
Rent (per person)	
Two bedroom—academic year lease	\$2,750 per semester/per person
Two bedroom—extended (12 month lease)	\$2,380 per semester/per person

General Expenses

University Cafeteria (estimate/semester)	\$950-\$1141 + tax
Books (estimate per semester)	\$300 - \$450
Debt Service Fee	\$8/credit hour
Debt Service Fee	\$90 maximum
Student Activity Fee	\$20
<i>(The activity fee is charged for the Fall and Spring terms and does not apply if all courses are audit only.)</i>	
General Access Fee - Per Hour	\$42/credit hour (nonrefundable)
General Access Fee - Maximum	\$294.50 (nonrefundable)
<i>(Portions refunded at the end of the semester upon surrender of the card to the Comptroller's Office.)</i>	
Digital Media Fee	\$100/credit hour
Business Course Fee	\$20/credit hour
<i>(Fee assessed on business courses that are not part of the general education core.)</i>	
Applied Music Fee	\$150
<i>(Private instruction in voice, piano, organ, and wind instruments, etc., one (1) half-hour lesson per week.)</i>	
International Education Fee (Fall & Spring only)	\$10
Materials Fees	
Biology	\$20
Chemistry	\$20
Geology	\$20
Physics	\$20
Computer and Information Sciences Fee	\$12
Radio and Television Course Fee	\$7 - \$41/course
Physical Therapy Course Fee	\$83 (for Anatomy course)
P.E. Assessment Fee	\$30

Returned Check Fee	\$30/check
<i>(Assessed per check that is returned unpaid, regardless of amount. See also the sixth paragraph under Regulations Governing Fee Payment.)</i>	
Late Registration	\$100
Post Office Box Rental Fee (per semester)	\$10/semester
<i>(*Fees subject to state and local sales tax.)</i>	

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 the 14th day of the semester (official census date) 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 Programs in Graduate Studies

	State
Master of Science in Engineering Technology	Virginia Kentucky
Master of Science in Environmental Health	Florida Virginia West Virginia
Master of Arts in Reading	Alabama Virginia
Master of Arts in Reading (<i>Storytelling Option</i>)	Alabama Florida Georgia Kentucky Louisiana Maryland Oklahoma South Carolina Texas
Master of City Management	Delaware
Master of Public Administration	Delaware
Master of Science in Clinical Nutrition	South Carolina
Doctorate of Audiology	Georgia South Carolina
Master of Science in Technology (<i>Geoscience option</i>)	North Carolina

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 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 error excepted), a late fee will be charged when the student redeems the unpaid check. The late fee 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 is subject to cancellation.

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.

Fee Adjustment Policies

Fee adjustment policies for maintenance fees, out-of-state tuition, and debt service fees are outlined below. Fee adjustments due will typically be processed two weeks after the changes in enrollment status.

Change of a Student's Status Which May Not Permit a Fee Adjustment—Student(s) who are suspended or expelled from the university or residence facilities are not eligible for a fee adjustment of housing rent/deposit or university tuition fees.

Change of a Student's Status Which May Permit a Fee Adjustment—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 Fee Adjustment—Dropping a course or courses; Withdrawing from the institution; Cancellation of a class by the institution; Death of the student.

Fee Adjustment Procedures—Fee adjustments are defined as the reduction of maintenance and/or tuition, fees and university housing charges from a student dropping credits, withdrawing, or being expelled from the university. The amount of the fee adjustment is determined according to the schedule below.

Fee adjustments are 100% for courses cancelled by the institution.

The fee adjustment for withdrawals or drops during regular terms (fall and spring) is 75% from the first day of classes through the fourteenth calendar day of classes and then reduced to 25% for a period of time which extends 25% of the length of the term. There is no fee adjustment after the 25% period ends. Students enrolling in more than a full-time course load receive the benefit of additional course work at no additional cost. Dropping or withdrawing from classes during either the 75% or the

25% fee adjustment period will result in a fee adjustment of assessed maintenance fees based on the total credit hours of the final student enrollment. The fee adjustment is calculated as the difference between (1) the cost of originally enrolled hours and (2) the per credit hour cost of the courses at final enrollment after adjustments have been applied for all courses dropped. Adjustments are calculated at the full per credit hour rate less the fee adjustment credit at the applicable fee adjustment percentage (regardless of the original number of hours enrolled) with total costs not to exceed full-time tuition. For students dropping courses resulting in a change from full-time status to part-time status, a fee adjustment in the tuition and fees will result only if the new calculated charges are less than the original charges. Not all drops/withdrawals will result in a fee adjustments.

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.

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 prorata 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
 - a. state, private, or institutional aid;
 - b. 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. Student(s) who are suspended or expelled from the university or residence facilities are not eligible for a refund or housing rent/deposit or university tuition/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 loans.

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.

The Free Application for Federal Student Aid (FAFSA) is the federal government's form for applying for financial aid. Students must complete the FAFSA every year as soon after January 1st as possible using accurate tax information from the prior year. The FAFSA provides a comprehensive review of the family's financial status. The results, including the Expected Family Contribution, are generated on the Student Aid Report (SAR), sent to the student, and sent electronically to colleges and universities listed by the student on the FAFSA. Students will find links to other helpful financial aid information at www.etsu.edu/finaid. A link is also provided to complete the FAFSA electronically.

Financial aid programs, rules, and regulations are subject to change. Federal funds are conditional upon congressional appropriations and receipt of those funds at ETSU. The Financial Aid Policies and Procedures Guide located at www.etsu.edu/finaid gives additional detail on program requirements.

Financial Aid counselors are assigned to students according to the student's last name. Students may contact their counselor with any questions or concerns regarding their eligibility.

In an effort to adhere to federal privacy laws, the ETSU Office of Financial Aid restricts the release of certain private student information. Students must contact the Office of Financial Aid personally to check the status of their financial aid application and awards. Often, we will be unable to release information to third parties (i.e., parents, spouses, etc.) without a signed release form on file from the student. To obtain a Release of Information Form, the student must visit our office in person and present a photo ID. This Release of Information does not authorize third parties to complete documents that, by law, require the student's completion and/or signature. Access to financial aid information is limited and does not include access to information from other university

departments. This release will remain in place until the student submits a written cancellation request to the Office of Financial Aid.

Any applicant who has a concern that cannot be resolved between the student and a financial aid counselor may appeal in the following order: to the Client Services Coordinator, the Assistant Director of Financial Aid, then the Director of Financial Aid. The student may appeal to the Vice Provost if none of the previous steps resolved the issue.

"Funding Education Beyond High School," a publication 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.

Student Eligibility

To be eligible for federal financial aid programs, students must meet the following criteria:

1. Be accepted for admission;
2. Be enrolled as a regular student, attending classes in a degree or certificate program;
3. Be a U.S. citizen or eligible non-citizen;
4. Meet the financial aid Satisfactory Academic Progress Policy;
5. Males must be registered with the Selective Service;
6. Not be in default on a student loan or owe a repayment of Title IV federal financial aid funds. (A repayment occurs if the student receives funds for living expenses and then withdraws within the first 60% of the term (officially or unofficially) from the university.)

Students not enrolled in a degree or certificate program may be eligible for financial aid if enrolled in pre-requisite classes for admission into a graduate degree program or enrolled in classes to complete teaching certification requirements. Federal Stafford Loans may be awarded to these students for a maximum of 12 consecutive months and a one-time occurrence during educational career.

Federal Financial Aid Application Procedures

1. Apply for a personal identification number (PIN) for yourself at www.pin.ed.gov if you do not already have one.
2. Every year, complete the Free Application for Federal Student Aid (FAFSA) as soon as possible after January 1st using accurate tax information from the prior year. Students are encouraged to complete the FAFSA electronically at the following web site: www.fafsa.ed.gov. List the ETSU school code, 003487, on the FAFSA for ETSU to receive the data electronically.
3. ETSU will review the student's financial aid record electronically with the National Student Loan Data System (NSLDS.) If the student has attended another institution and discrepancies are found, the student must resolve the discrepancy with that institution.
4. The Federal Processor sends the Student Aid Report (SAR) to the student in response to completing the FAFSA. ETSU will receive the SAR data electronically when the student lists ETSU on the FAFSA. If ETSU was not listed on the FAFSA, the student should go to www.fafsa.ed.gov and add the ETSU school code, 003487. The student is encouraged to review the SAR for accuracy. If corrections are required, ask the Office of Financial Aid for assistance. If the student is selected for verification, the student should contact the ETSU Office of Financial Aid for further instruction or assistance. The Office of Financial Aid may require other information.
5. When the student receives the financial aid award letter, review the letter, sign and return it to the Office of Financial Aid by the due date.
6. If you accept the Stafford Loan, complete the Stafford Lender Selection Form and return it with the financial aid award letter. If you are a first-time borrower, complete the Master Promissory Note (MPN) with your lender. Complete Stafford entrance loan counseling online at www.mapping-your-future.org for ETSU regardless if completed at another institution. If you accept Perkins Loan,

complete the Master Promissory Note with the Office of the Bursar and complete entrance loan counseling for Perkins at www.mapping-your-future.org regardless if completed at another institution.

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** Complete the Free Application for Federal Student Aid (FAFSA) as soon as possible using accurate tax information.
2. **April 15** Priority date for student financial aid files to be complete to have financial aid available at the beginning of the fall term. Students applying on or after July 1 **should not** anticipate having aid available at the beginning of the fall term.
3. **November 15** Priority date for student financial aid files to be complete to have financial aid available at the beginning of the spring term.

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, percentage of credit hours 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 hours completed and cumulative GPA, East Tennessee State University uses the following satisfactory progress policy:

- **PROGRESS STANDARDS:** Students must earn a satisfactory grade in at least 66% of the semester credit hours they attempt each semester.
- **SEMESTER PROGRESS:** Students must, as a minimum, receive a satisfactory grade (*) in the courses they attempt each semester. *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. Audits do not count as attempted hours and are not eligible for financial aid.
- **Note:** Unsatisfactory grades **will not** be counted as earned credit hours, but **will** count as attempted credit hours.
- **EVALUATION PROCESS**
 - Academic progress is reviewed at the end of each Spring term, and students who do not make satisfactory academic progress are notified in writing.
 - Students who receive all "I", "P", "W", "WF", or "U" grades in courses attempted in ANY term (fall, spring, summer) will become ineligible for financial aid (see below in reference to Regaining Eligibility).
 - Repeat courses will be counted in earned credit hours. (Note: ALL courses attempted, except audited courses, count in total credit hours attempted.)
 - Transfer courses recognized by ETSU will be counted in attempted and earned credit hours.
 - All distance education, telecommunications, television, and web-based courses are considered in total attempted hours.
 - Academic Fresh Start (See [Admissions](#)) students will have their satisfactory academic progress evaluated on work attempted after returning to the University under the Academic Fresh Start Policy. However, the appeal limits and maximum eligibility requirement (150%) still apply (see below in reference to Maximum Eligibility).
 - Second-degree students will have their satisfactory academic progress calculated from the credit hours attempted beyond the first degree. (Note: Additional credit hours for the second-degree coursework will be limited to the credit hours required to complete the second degree.) A second-degree student is defined as a student with a previous degree at the same classification, either

undergraduate or graduate. For example, a student pursues a bachelor's degree in a new field after earning a previous bachelor's degree.

- Students classified as "Undergraduate Special" (SPU) may be eligible for federal financial aid; check with a Financial Aid Counselor.
 - Students classified as "Graduate Non-Degree" (SPG) are eligible for federal financial aid for a maximum of one year if they are enrolled in classes that are:
 - Required for a teacher certification program (the loan limit is that of a fifth-year undergraduate); OR
 - Necessary as pre-requisite courses for enrollment into a graduate program (the loan limit is that of a fifth-year undergraduate).
 - Students may receive aid for no more than 30 attempted hours of remedial coursework. English as a Second Language (ESL) classes are included in the 30 credit hours.
 - **CUMULATIVE PROGRESS:** Students must, in addition to the above, meet the retention standards of [ETSU](#) as outlined in the current ETSU Undergraduate and Graduate catalogs.
 - **MAXIMUM ELIGIBILITY:** Students who have attempted 150% of the required credit hours for their degree will become ineligible for financial aid. Maximum eligibility is checked each semester.
 - **REGAINING FINANCIAL AID ELIGIBILITY**
 - **SATISFACTORY PROGRESS APPEAL:** Students who fail to meet these standards and lose eligibility for financial aid can appeal that decision to the Office of Financial Aid. The appeal must be prepared in writing on the Satisfactory Academic Progress Appeal Form, and must be accompanied by appropriate supporting documents. The appeal form can be found below. Reasons that may be acceptable for the appeal are:
 - Serious illness or accident on the part of the student;
 - Death, accident, or serious illness in the immediate family;
 - Class cancelled by [ETSU](#); and
 - Other acceptable extenuating circumstances considered
 - **MAKING UP DEFICIENT CREDIT HOURS WITHOUT AID:** In the event that the student does not qualify for an appeal, he or she may be eligible to have financial aid reinstated by taking the following actions:
 - Earn at [ETSU](#) the number of deficient credit hours (see chart above in reference to Semester Progress for credit hour requirements) in which aid was received;
 - Pay for these hours without federal financial aid;
 - Maintain a minimum 2.0 GPA for the term average for those credit hours; and
 - Notify the Office of Financial Aid when the deficient hours have been earned.
 - **APPEAL LIMITS** The maximum number of appeals any student may normally have granted during an academic career is two (2). Under extreme circumstances, a third appeal may be granted during an academic career, 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.
- [Satisfactory Academic Progress Appeal Form](http://www.etsu.edu/finaid/Forms/AppealForms.asp)
<http://www.etsu.edu/finaid/Forms/AppealForms.asp>
[Bursar's Office Fee Adjustment Policy](#)
<http://www.etsu.edu/finaid/Forms/AppealForms.asp>

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 vacancies at <http://www.etsu.edu/gradstud/positions.asp>.

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 perform eight hours of service 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/gatshandbook.pdf>.

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 or email housing@etsu.edu.

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 Center for Community Engagement, Learning, and 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 to students with financial need. Students are paid minimum wage bi-monthly.

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.

Available positions for FWS and RSWP are listed at www.etsu.edu/finaid under Student Work Positions.

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 6 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. (e.g.) William C. Dunn Memorial Loan Scholarship Fund; the Ada Hornsby Earnest Loan Scholarship; the Eastern Star Loan Fund, Nolichucky 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 are currently 6.8% but may vary with legislative changes.

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 and Graduate Nursing Loan Forgiveness Programs – Information about these programs is available at www.CollegePaysTN.com.

Veterans Affairs

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

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 (423) 439-4210 - www.etsu.edu/students/.

Student Services and Resources

- **Adult, Commuter, and Transfer Services**—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 for ETSU's adult, commuter, and transfer population. **Adult** students benefit from personalized referrals while gaining a greater awareness of university services and events. **Commuting** student services include easy access to campus maps, a battery pack, air compressor, shuttle/transit schedules, off-campus housing listings, and the Carpool and RideShare programs. **Transfer** students receive guidance and support in making the transition from other colleges and universities 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 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.

A.C.T.S. advises the Zeta Tau Chapter of the adult student honorary, Alpha Sigma Lambda, as well as a chapter of Tau Sigma – the national honorary for transfer students. A.C.T.S. invites both undergraduate and graduate students to join THE NET, a web-based student organization for 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 Career Center. Contact A.C.T.S. at (423) 439 5641 or visit our web site at <http://www.etsu.edu/students/acts/>.

- **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 (423) 439-8650. The ARC is open Monday-Friday 8:00 a.m. - 4:30 p.m.-www.etsu.edu/arc
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** (423) 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/advisement/uac/index.jsp.
- **Arts and Sciences in the ARC** (423) 439-5671—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.
- **Cooperative Education and Internship Services** (423) 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.
- **University Tutoring Services** (423) 439-4758—An academic support program that offers a variety of tutoring approaches. UTS offers group and online tutoring for selected high-risk core courses. These services are free and available to all ETSU students. Visit our web site at www.etsu.edu/scs/uts.
- **Peer Career Center** (423) 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.

- **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 - www.etsu.edu/alumni/index.asp.

- **America Reads Challenge** –The America Reads Program hires, trains, and places federal work-study students at schools and community centers in Johnson City and its surrounding counties to provide one-on-one and small group instruction to children who read below the third-grade level. Through this outreach to the community, local children and youth receive personalized tutoring needed in order to excel in reading thus boosting their confidence, motivation and overall academic achievement. Tutors become actively engaged in the child’s learning experience, gaining valuable skills and abilities that will positively affect their own future endeavors. For more information contact 439-8587 or email amreads@etsu.edu. Students who do not receive federal work-study funds may serve as volunteers.
- **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 217 Roy Nicks Hall, phone (423) 439-7865, e-mail cass@etsu.edu, <http://www.etsu.edu/cass/>.
- **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** — 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 - www.etsubookstore.com.
- **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 (423) 439-5641 and the Student Affairs Office, phone (423) 439-4210. - www.johnsoncitytransit.org/campus.html.

- **Career 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 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 and Internship Services is located in the ARC Center, 2nd level, D.P. Culp University Center, phone (423) 439-4450 - www.etsu.edu/careers.

- **Commuting Student Services**—The Office of Adult, Commuter and Transfer Services provides specialized student services important to the commuting student. These services include transit information, loan of battery pack, air compressor, and off-campus housing information. In addition, students may access the RideShare and Carpool programs by contacting A.C.T.S. at its location in the Advisement, Resources, and Career Center, 2nd level, D.P. Culp University Center, phone (423) 439-5641 – www.etsu.edu/acts.
- **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, 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 Finance and Administration.

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.

- **Electronic Mail Policy**—This policy was adopted by the Information Technology Governance Committee on February 17, 2009.

As email has become an integral part of the academic process, confidential information about ETSU students is being transmitted, including evaluations, grades, and financial information. Faculty, staff, and students must recognize that although there is an expectation of privacy, unencrypted email is not a secure means of transmitting information. While this policy does not prohibit student information from being transmitted by email, caution must be exercised regarding the content of messages.

ETSU provides each student, faculty, and staff member with an official university-assigned email account. All official university communications will be sent to the university email address. Faculty, staff, and students may assume that official ETSU email is a valid communication mechanism. Therefore, the university has the right to send communications to students, faculty, and staff via email and the right to expect that those communications are received and read in a timely fashion. Since this is our primary method of communication, email should be checked at least daily. Although students may choose to forward university email to an external email account, he or she is responsible for all information, including attachments.

Revised 1/2009

- **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 (423) 439-5388.

- **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 (423) 439-4841 or contact the Peer Career Center (423) 439-8651 - www.etsu.edu/students/counsel/counsel.htm.
- **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, on J. L. Seehorn, Jr. Road (v/tdd) (423) 439-8346, (tdd) (423) 439-8370 - www.etsu.edu/students/disable/disable.htm.

- **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 (423) 439-7555. Enrollment is on a limited basis. <http://child.etsu.edu>.

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. Dosssett Hall, phone (423) 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/>.
- **ID Card and Campus Debit Card (ID BUC\$)**—All students must obtain an official East Tennessee State University ID Card in order to have full access to all 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, CPA, computer labs, and selected classrooms. Your ID card is also used to access meal plans, obtain tickets to athletic events, and to participate in student voting.

Students may also choose to create a debit account called ID BUC\$. You may use ID BUC\$ in the campus bookstore, all food service locations on campus, laundry facilities in residence halls, Student Health Clinic, University Press Convenience Center, Sherrod Library fees, Bursar's Office fees, and Coke and snack machines located all over campus. ID BUC\$ are also accepted at participating off-campus merchants. You may make a deposit online, by phone, or at the Campus ID Services Office.

ID cards will be issued during new student orientations or anytime after registering for classes. Please come by the ID Services Office on the 2nd level of the D.P. Culp Center for a brochure and additional information or visit our web site, which details services and the terms and conditions.

Campus ID Services Office Regular Office Hours:

Box 70611

Johnson City, TN 37614

Phone: 423-439-8316

Monday—8:00 a.m.—6:00 p.m.

Thursday—Friday 8:00 a.m.—4:30 p.m.

<http://www.etsu.edu/id>

- **Immunization Requirements** — Full-time students must provide proof of receipt of the first MMR vaccine dose prior to the first day class of students' initial semester at the institution. Subsequently, universities and colleges must obtain proof of receipt of the second dose of the MMR vaccine from full-time students who are completing the MMR vaccination series as a condition of enrollment as soon as possible after the proscribed twenty-eight (28) day waiting period between doses, but no later than the beginning of the next semester. Students who attended a public or private school in Tennessee for grades kindergarten through twelve for any period of time on or after July 1, 2001, are considered exempt and do not need to provide documentation. Bring MMR documentation to Student Health Services, Room 160, Roy S. Nicks Hall or fax it to (423) 439-4560.

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 can be electronically signed on *GoldLink* at the time of registration for classes. If the student is under 18 years of age, the waiver can be obtained from ETSU Student Health Services, 160 Roy S. Nicks Hall or via the web site: www.etsu.edustudenthealth. A parental signature is required on the form if the student is underage. 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 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 (423) 439-5641 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 and Services**—The International Programs and Services Office, 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 the Friendship Family Program are among the many services offered by the office. (www.etsu.edu/honors/international)

The office also coordinates study abroad and exchange programs such as the National Student Exchange (NSE) and the International Student Exchange Programs (ISEP), among others. (423) 439-7737.

- **Leadership Development**—Educating future leaders is the purpose of higher education. ETSU believes all graduates will play a leadership role in their careers, families, and/or communities. Preparing for these opportunities can be accomplished by participation in service initiatives, taking Leadership courses, enrolling in the Leadership Minor, and participation in campus organizations. For more information about Leadership Development, contact Dr. Deborah Harley, Assistant Professor of Human Development and Learning, Claudius G. Clemmer College of Education, harley@etsu.edu, (423) 439-7692.

- **Libraries**—The current Sherrod Library, containing the major learning resources that support the university's program of teaching and research, opened in 1999. The collections include one-half million volumes, over one million microforms, over 12,000 periodical subscriptions (electronic and print), 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 MILLENNIUM catalog, which is accessible from any Internet-connected computer. Over sixty computers (including 25 laptops) are distributed throughout this state-of-the-art, wireless building which has more than 1,800 seats. A study room open 24 hours a day is accessible with a student ID. (423) 439-5309 - <http://sherrod.etsu.edu>

The ETSU at Kingsport Library has a collection of over 25,000 volumes and maintains subscriptions to over 100 periodicals. (423) 392-8010

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. <http://com.etsu.edu/medlib> (423) 439-6252

- **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.

Stop by, look around, enjoy regional fine art and history exhibitions and join in on special programs such as workshops, storytelling, musical performances, and receptions. Exhibits include annual quilt exhibitions, items from the permanent collections, contemporary art, and traveling displays. The museum is at the junction of Stout Drive and Gilbreath Circle on the East Tennessee State University campus. All events and admission are free to the public. Allow one hour minimum. Gallery hours are 9 a.m. until 4 p.m., Monday-Wednesday and Thursday, 9 a.m. until 7 p.m., closed holidays and the week of December 25. Phone: (423) 439-4392. www.etsu.edu/reece/

- **Service Programs**—ETSU's commitment to service is evident through the campus mission statement and the numerous opportunities we provide students. Students are encouraged to expand their intellectual and social development. For more information, contact the Student Organization Resource Center at (423) 439-6633.

- **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.

The Center for Community Engagement, Learning, 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.

Almost 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 Community Engagement, Learning, and Leadership, phone (423) 439-5675 for more information.

Academic Clubs

Advertising Club
 Alpha Sigma Iota
 AMA – Medical Student Section of ETSU
 American Association of Family and Consumer Sciences Student Unit at ETSU
 American Congress on Surveying and Mapping
 American Marketing Association
 American Pharmacists Association Academy of Student Pharmacists, ETSU Chapter
 American Society of Interior Designers
 Association for Computing Machinery
 Biomedical Sciences Graduate Association
 Club Cervantes
 Construction Management Association
 Criminal Justice Society
 Der Deutsche Club - German Club
 Doctoral Nursing Student Organization
 Economics Club
 Educational Leadership Association
 Entrepreneur's Club
 Future Doctors of Audiology
 Geology Club at ETSU
 Graduate and Professional Student Association
 Graduate Students Association of Psychology
 History Society
 Human Development and Learning
 Japanese Cultural Society
 La Societe Francais
 Masters of Social Work Student Association
 National Student Speech Language Hearing Association
 NET - Nontraditional Student Network
 Organization of Student Representatives (College of Medicine)
 Percussion Society
 Phi Mu Alpha Sinfonia - Music
 Philosophy Club
 Pre-Pharmacy Club
 Psychology Club
 Public and City Management Association of Graduate Students
 Public Health Student Association
 Public Relations Student Society of America
 Student ACM Siggraph at ETSU (EDGE)

Student Association for Young Children
Student Ceramic Association
Student Dietetic Association
Student Metal Art Club
Student Nurses Association
Student Painting, Drawing, and Alumni Association
Student Photography Association
Student Physicians Interested in Anesthesiology
Student Sculpture Society
Student Social Workers Association
Student Tennessee Education Association
Student Women in Medicine (SWIM)
Students of Finance Association
Taletellers

Honor Societies

Alpha Lambda Delta
Alpha Phi Sigma
Alpha Sigma Lambda - Adult Student Honor Society
Beta Alpha Psi - Business
Beta Beta Beta
Delta Phi Alpha - German
Delta Sigma Pi
Epsilon Pi Tau
Golden Humanism Honor Society
Golden Key Honor Society
Kappa Delta Pi
Kappa Kappa Psi
Kappa Omicron Nu – Economics
Lambda Pi Eta
National Residence Hall Honorary
Omicron Delta Epsilon
Omicron Delta Kappa
Phi Alpha Honor Society
Phi Kappa Phi
Pi Delta Phi Honor Society – French
Pi Sigma Alpha
Psi Chi - Psychology
Sigma Alpha Iota
Sigma Alpha Lambda
Sigma Theta Tau - International Honor Society for Nursing Students
Tau Sigma – Transfer Student Honor Society

Campus Ministry Opportunities

Adventist Christian Fellowship
Baptist Collegiate Ministries
Campus Crusade for Christ
Catholic Campus Ministries
Chi Alpha Christian Fellowship
Christian Student Fellowship
Generation Church
Hillel
Latter Day Saint Student Organization
Presbyterian Student Fellowship
Reformed University Fellowship
The Well
Wesley Foundation
Young Life - QUEST

Social Fraternities and Sororities

Fraternities

Alpha Phi Alpha Fraternity, Inc.
Kappa Sigma
Lambda Chi Alpha
Pi Kappa Alpha
Sigma Alpha Epsilon
Sigma Chi
Sigma Nu
Sigma Phi Epsilon
Tau Kappa Epsilon

Sororities

Alpha Delta Pi
Alpha Kappa Alpha Sorority, Inc.
Alpha Xi Delta
Delta Sigma Theta
Kappa Delta
Sigma Kappa
Zeta Phi Beta

Community Service

Alpha Phi Omega
Alternative Spring Break
Relay for Life
Up 'til Dawn
Volunteer ETSU

Governance

Graduate and Professional Student Association
Honors College Student Council
Inter-Fraternity Council
National Pan-Hellenic Council
Residence Hall Association and 8 Hall Councils
Student Government Association

Special Interest Groups

African Diaspora Society
Amnesty International
Art History Society
BUC WILD
Bucs Against Drunk Driving
Chinese Student and Scholar Association
College Democrats
College Republicans at ETSU
Colleges Against Cancer
Collegiate Merchandising Association
Cycling Club
Feminist Majority Leadership Alliance
Fiber Club
First Book
Foundation for the International Medical Relief of Children–ETSU
Chapter
Gaming Society at ETSU
Gospel Choir
Initiative for Clean Energy
Kingsport Student Service Board
Knitting Club of ETSU
Leadership House
NAACP at ETSU
NAMI – Bucs
National Association of Black Social Workers
National Society of Scabbard and Blade
NET (Adult, Commuter, and Transfer Services Leadership Network)
Patchwork Players
Silent Bucs
Society for Intellectual Diversity
Society of American Archivists Student Chapter at ETSU
Student Ghost Hunters at ETSU
University Amateur Radio Club

Sporting/Activity

BUC Paintball Club
Climbing Club
Dance H.I.T.S.
Ducksquad
Eddie Reed Ranger Challenge Team
Exercise and Sports Science Club
Fencing Club of ETSU
Marksmanship Club
Men's Soccer Club at ETSU
U.S. Army ROTC Running Team
White Water Adventures

Residence Life

Carter-Stone Hall Council
 Davis Hall Council
 Dossett-West Hall Council
 Lucille Clement Hall Council
 Luntsford Hall Council
 Powell-Panhellenic Council

University Sponsored

Admissions Ambassadors
 Black Affairs Association
 East Tennessean
 Preview and Orientation Leaders Association
 Buctainment

- **Buctainment**— Comprised of students, Buctainment plans major campus events such as concerts, movies, lectures, comedy shows, and Homecoming. Students can be involved with Buctainment 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 Community Engagement, Learning, and Leadership, D.P. Culp University Center, lower level, phone (423) 439-6828 or e-mail etsufun@etsu.edu.
- **Placement Service**—Placement services are provided as part of the Office of Career 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 and Internship Services is located in rooms 211-213G Campus Center Building (Building 12), phone (423) 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 (423) 439-4480. The number for the administrative offices is (423) 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 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.

ETSU at Bristol closed in 2009 due to budgetary constraints. Classes are still offered at various sites in the Bristol area. Telephone: (423) 844-6300.

The Department of Allied Health Sciences, located at the Nave Center in Elizabethton, is a multidisciplinary department offering courses of study leading to a Bachelor of Science. The Bachelor of Science degree is available in Allied Health with concentrations in Allied Health Leadership, Cardiopulmonary Science, and

Radiography. The telephone number is (423) 547-4900. The department offers a Bachelor of Science degree in Dental Hygiene. The telephone number is (423) 439-4497.

- **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**—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 non-traditional students who need courses off-campus, in the evening, or online. The Master of Arts in Liberal Studies and the Master of Professional Studies allow adult students to pursue interdisciplinary study in a variety of areas. A regional center in Kingsport and sites in Bristol 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. The mission of the Office of Service-Learning is to make service an integral part of student education at East Tennessee State University by providing hands-on learning opportunities, expanding students' knowledge of social issues, fostering a sense of civic responsibility and social justice, and creating an expectation of service as an intentional part of the collegiate experience. Many disciplines integrate service-learning into their courses. 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. Contact the Office of Service-Learning at (423) 439-8218.
- **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.
- **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 160 Nicks Hall.

Please call (423) 439-4225 for further information.

The Dental Hygiene Clinic of the Department of Allied Health Sciences 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.

- **ETSU Welcome Center**—The ETSU Welcome Center is home to several office as follows:
- **Scholarship Office**—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. www.etsu.edu/scholarships
- **Undergraduate Student Advisement**—This office is the home of ETSU's Director of University Advisement. The office provides advisor training, coordinates the Need Help web site, and oversees the Partners in Education Program.
- **Campus Tours**—Walking tours are conducted at 9 a.m. and 1 p.m., Monday – Friday, September through April. Summer tours are given May through July at 1 p.m., Monday through Friday. Please call Admissions at 1-800-462-3878 or (423) 439-4213 to schedule a campus tour. For a virtual visit to ETSU, try our web site at www.etsu.edu.
- **Roan Scholars Program** —This innovative program aims to develop tomorrow's leaders by providing a select number of exceptional students with unique, carefully designed leadership opportunities and learning experiences on the campus of ETSU and beyond. Program Office Location: Panhellenic Hall, Room 212; Address: ETSU Box 70304, Johnson City, TN 37614; Phone: 423-439-7677; Fax: 423-439-6040. Program Director: Kristina Bullock E-mail: bullockk@etsu.edu
- **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 life. The Culp University Center provides a wide variety of services, entertainment, and social activities for the campus community. 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 (423) 439-4286. Among the administrative offices housed within the building are the Counseling Center, Career and Internship Services, Vice President

for Student Affairs, Student Support Services, Upward Bound, Food Services, Community Engagement, Learning, and Leadership, Center for Adult, Commuter, and Transfer Services (ACTS), 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. For more information, call (423) 439-4250.
- **Veterans' Affairs**—Coordinates the delivery of military-related educational benefits of the United States Department of Veterans Affairs (USDVA), to eligible service members, veterans' and certain disabled veterans' dependents.

Benefit Programs

Primary entitlement programs administered by the Veterans' Affairs office:

- Montgomery GI Bill – Active Duty (MGIB-AD) Educational Assistance Program [Authority: Chapter 30, Title 38 *United States Code (USC)*];
- Vocational Rehabilitation & Employment (VR&E) Program [Authority: Chapter 31, Title 38 *USC*];
- Reserve Educational Assistance Program (REAP) [Authority: Chapter 1607, Title 10 *USC*];
- Montgomery GI Bill – Selected Reserve (MGIB-SR) Educational Assistance Program [Authority: Chapter 1606, Title 10 *USC*];
- Survivors' & Dependents' Educational Assistance (DEA) Program [Authority: Chapter 35, Title 38 *USC*];
- Veterans' Work-Study Allowance Program [Authority: Chapters 30, 31, 35 of Title 38 & Chapters 1606 & 1607 of Title 10 *USC*];
- Veterans' Tuition & Fee Deferment Program [Authority: § 49-7-104 *Tennessee Code Annotated (TCA)*]

Information on the above federal programs, except VR&E and state programs, may be found at www.gibill.va.gov. VR&E information can be found at www.vba.va.gov/bln/vre/.

Points of Contact - The Veterans' Affairs office on campus provides information, forms and general assistance to those applying for the above education benefit programs. Official decisions on eligibility are made by the appropriate government office and not the Veterans' Affairs office.

Questions regarding USDVA applications/benefit payments status (except VR&E) should be directed to:

Central Region Processing Office
United States Department of Veterans Affairs
Post Office Box 66830

Secure e-mail: <https://www.gibill2.va.gov>
Saint Louis, Missouri 63166-6830 888.GI.BILL.1 (442.4551)

VR&E beneficiaries should contact:
Christi Hellard, Counselor/Case Manager
Vocational Rehabilitation & Employment
United States Department of Veterans Affairs
E-mail: christ.hellard2@va.gov
412 North Cedar Bluff Road, Suite 416
Voice: 865.692.0711 Fax: 865.692.0712
Knoxville, Tennessee 37923-3605

Benefit Program Applications

Applicants for the MGIB-AD and REAP programs must provide a copy of their most recent *Certificate of Release or Discharge from Active Duty* [Department of Defense (DD) Form 214]. For MGIB-AD applicants, if claiming entitlement to the “buy-up” program, provide a copy of the election form and evidence of the increased benefit contribution. New applicants for the MGIB-SR will need to provide a copy of their *Selected Reserve Educational Assistance Program Notice of Basic Eligibility* (DD Form 2384) available from their unit. If applying for the MGIB-AD, REAP or MGIB-SR and entitled to a college fund/“kicker” then supporting documentation should also be provided. New VR&E and DEA applicants should provide a copy of the disabled veterans’ “Disability Rating Decision.” Additionally, DEA applicants should provide a copy of their birth certificate to submit along with their application. Adoption orders and parents’ marriage license/certificate should be included if the dependent was legally adopted by the veteran. In response to a completed application, the USDVA will issue a “Certificate of Eligibility,” a copy of which should be provided to Veterans’ Affairs. If a beneficiary previously used benefits elsewhere, a change in program or place of training form must be completed.

Policies & Procedures

1. As soon as students are enrolled for classes, they should contact Veterans’ Affairs each semester to request a certification of enrollment to the USDVA Regional Processing Office (RPO). Only required courses in the student’s officially declared academic program may be certified. RPO processing of enrollment certifications of the school can vary but generally require 45-60 days so students should plan accordingly for their personal finances.
2. Students must keep Veterans’ Affairs informed of all change(s) in enrollment so that timely reports can be made to the USDVA RPO.
3. Beneficiaries must attend classes and demonstrate satisfactory conduct and effort toward meeting the course requirements. Failure to maintain satisfactory attendance and conduct may result in retroactive adjustments in certified training time that will likely result in an overpayment of benefits that will be collected by the USDVA.
4. Monthly self-verifications of enrollment can be accomplished securely online at <https://www.gibill.va.gov/wave/> or toll-free at 877.823.2378. Interval payments (benefit payments for the time between terms) are also automatic when a beneficiary stays continuously enrolled. Retroactive payments occur only when the RPO processes an enrollment certification for a subsequent term.
5. A student needs only to remain in good academic standing with the institution for continued receipt of benefits.
6. A course for which a student receives an “Incomplete” must be graded within one year or the beneficiary will be subject to a retroactive adjustment in the semester’s training time likely resulting in an overpayment and recovery of benefits.
7. Pre-professional declarations (e.g., Pre-Med, Pre-Law, etc.) as the student’s major and/or enrolling in courses to meet prerequisites for professional study are not approved objectives currently approved by the USDVA.
8. Military registry transcripts are required of all beneficiaries in undergraduate studies who have military service (see separate topic on how to request military registry transcripts). For credit-by-examination policy (e.g., CLEP, DSST, etc.), students should consult the “Non-Traditional Credit” pamphlet available from Undergraduate Admissions.
9. Beneficiaries are expected to regularly consult with their academic advisor and to refer to their respective catalog of admission on academic requirements, policies and procedures. Moreover, students

are expected to clearly identify their degree, major (including concentrations, emphasis, tracks, etc.) and minor, as required.

10. All changes to a student’s academic program (except VR&E) must be reported to Veterans’ Affairs office for the completion of the appropriate forms and USDVA reporting. The academic program on file with Veterans’ Affairs must agree with what is declared with the university. VR&E beneficiaries must coordinate any changes in their academic program with their case manager who must approve a program change. Failure to report or coordinate changes of academic programs will likely result in delayed receipt of benefit payments.

Veterans Tuition & Fee Deferments

Beneficiaries who pay in-state tuition and fees, have remaining benefit entitlement, and such entitlement does not expire within the semester may request additional time in payment of tuition and fees under state law. Approval is contingent upon a beneficiary demonstrating benefits eligibility with sufficient entitlement to cover tuition and fees and no indebtedness to the USDVA. If a continuing student or one previously enrolled and utilized a veterans tuition and fee deferment, the student must have timely paid in full deferred tuition and fees to remain eligible for the deferment. Students who do not follow the conditions of a deferment will forfeit their eligibility for deferments in all future enrollments.

Military Registry Transcripts

New and transfer undergraduate student beneficiaries with military service must ensure an official military registry transcript is sent to Veterans’ Affairs and Undergraduate Admissions offices. University policy permits the award of academic credit only for formal military training and not skill levels attained/occupational experience. Army training with academic credit award recommendations is documented in an *Army-American Council on Education Registry Transcript System* (AARTS) transcript (further information available at <http://aarts.army.mil/order.htm>). Navy and Marine Corps training is contained in a *Sailor-Marine American Council on Education Registry Transcript* (SMART) (for further information or to order online go to <https://smart.navy.mil/smart/welcome.do>). Air Force veterans must submit an official transcript from the *Community College of the Air Force* (CCAF) (for further information or to make online requests go to <http://www.maxwell.af.mil/au/ccaf/transcripts.asp>). Students with formal Coast Guard training should submit an official copy of their *Coast Guard Institute* transcript, if available (request form available at http://www.uscg.mil/hq/cgi/Institute_Forms/1564.pdf). All forms to request transcripts are also available in the Veterans’ Affairs office.

Veterans Work-Study Allowance Program

Veteran work-study opportunities are available locally to beneficiaries with sufficient remaining benefit entitlement and enrolled in school at least three-quarter time. Interested students should contact the Human Resources (Building 20) office at the James H. Quillen Veterans Affairs Medical Center (VAMC) at Mountain Home. The VAMC Veterans Work-Study Coordinator may be contacted at 423.926.1171, extension 7183.

Military Mobilizations

A student may withdraw at any time during the semester for active military service and the student’s academic record will be annotated as a withdrawal for military reasons. A copy of official military orders or other official supporting documentation must be submitted for review in advance of withdrawing. Depending on the nature/authority of the call to active duty, payments under certain federal benefit programs may be kept and entitlement used during the interrupted term restored to the beneficiary’s entitlement. Tuition

and fees may also be refunded under certain instances of active military duty. Students receiving financial aid should check with the Financial Aid Office for the handling of Title IV funds awarded. Students should contact any student loan lenders and inform them of their military status to avoid entering student loan repayment status and other possible adverse collection actions while serving on active duty.

Veterans' Affairs is located in 101A Burgin E. Dossett Hall and is open from 8:00 a.m. to 4:30 p.m. weekdays. The office can be reached at 423.439.6819 or va@etsu.edu.

- **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 Community Engagement, Learning, 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/apartments 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. Some halls have carpeted hallways; laundry; kitchen and vending facilities; and adjacent parking. 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 is 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 is payable by the semester and includes water, electricity, telephone (except for long distance calls), data access, and cable TV hookup.

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 may be obtained by contacting the Department of Housing and Residence Life at the address below or printed from the housing website. 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:

East Tennessee State University
P.O. Box 70723

Johnson City, TN 37614-1710

Telephone (423) 439-4446

Fax: (423) 439-4690

e-mail: housing@etsu.edu

website: www.etsu.edu/students/housing/housing.htm

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 Basler 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 Men'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 Basler Center for Physical Activity.

Graduate Programs

Program and Course Information

This section of the catalog provides narratives on graduate programs, concentrations, and certificates alphabetically by department. As well as specific information on admission criterion and fulfillment of graduate degree and certificate requirements. 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)

Graduate Faculty Rosters

Faculty rosters appearing in the following contain an alphabetical list of graduate faculty members participating in each program. A complete current listing of full and associate members of the graduate faculty, in addition to their rank, title, and places of study can be found in the back of this catalog.

Accountancy

Master of Accountancy

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

214 Sam Wilson Hall
 Box 70699
 (423) 439-5314 Fax: (423) 439-5274
 e-mail: pointer@etsu.edu

Gary D. Burkette, Ph.D., Chair

220 Sam Wilson Hall
 Box 70699
 (423) 439-4432
 e-mail: burkette@etsu.edu

Faculty:

Murray S. Anthony; Gary Berg; Gary D. Burkette; Richard A. Manahan; Thomas E. McKee; Robert Morgan; Martha Pointer; Kent Schneider; Mark Steadman.

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 regulation, 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
ACCT 3010	Financial Accounting I	3
ACCT 3020	Financial Accounting II	3
ACCT 3110	Management Accounting	3
ACCT 3410	Federal Income Taxes	3
ACCT 4010	Advanced Accounting	3
ACCT 4310	Accounting Information Systems	3
ACCT 4610	Auditing Theory & Practice	3
ACCT 4717	Not-for-Profit Entity Accounting	3

Business Foundation Courses:

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

Maximum 48 Credit Hours

Accountancy Core Courses

ACCT 5010	Seminar in Financial Accounting I	3
ACCT 5110	Seminar in Managerial Accounting	3
ACCT 5510	Seminar in Accounting Regulations	3
ACCT 5427	Federal Income Taxes II	3
ACCT 5610	Seminar in Auditing	3

Business Core Courses

BADM 5140	Data Analysis and Modeling	3
BADM 5140	Research Methods and Statistics	3
BADM 5220	Global Business	3

Electives and Capstone

Electives**	.....	6
ACCT 5890	Professional Accounting Experience***	3

Total Hours Required for Degree..... 33 Credit Hours

* 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 six credits of 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 ECON 5010. Foundation 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, via the instructional television system, at sites throughout Northeast Tennessee, or via CD rom.

Administrative Endorsement Concentration

See Educational Leadership and Policy Analysis

Advanced Nursing Practice Graduate Certificate—Post Master's (Nursing)

Faculty: *See Nursing

Registered nurses who already hold a Master of Science in Nursing (M.S.N.) degree 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 to the School of Graduate Studies which includes official transcripts from all previous undergraduate and graduate coursework, a completed personal essay, a vitae/résumé, and three (3) professional letters of recommendation. GRE reports are not required. Criteria for admission includes:

1. A Master of Science in Nursing (M.S.N.) 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 (3.0 on a 4.0 scale) in the nursing major; and
3. Licensure in the United States as a registered nurse and eligibility for licensure in Tennessee or compact state.

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 nineteen (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 Lifespan; PMNU 5004 Seminar in Professional Roles; two (2) 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 master's certificate program.

Advanced Studies in Teaching and Learning

**Master of Education in Advanced Studies
in Teaching and Learning in Teaching and Learning**

Martha Collins, Ph.D., Graduate Coordinator

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e-mail: collinsm@etsu.edu

Faculty: *See Curriculum and Instruction

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 (2) 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 numbers (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 (2) 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.

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 Advanced Studies in Teaching and Learning are required to meet with the chair of the advisory committee to plan the sequence of courses leading to the degree. They must successfully complete the required professional development courses.

A comprehensive oral final examination is required of all students completing graduate programs in advanced education. Presentation of the Professional Level of Teaching portfolio is a required part of the oral examination. Candidates meet with their advisor at the beginning of the final semester to plan for these examinations. Specific program requirement are indicated below:

ASTL 5701	Teacher as Learner	3
ASTL 5700	Portfolio Development	3
ASTL 5721	Theory and Foundation of Development Literacy (Literacy I)	3
ASTL 5723	Understanding and Implementing Best Practices in Teaching Beginning Literacy (Literacy II)	3
ASTL 5725	Understanding and Implementing Best Practices for Continued Literacy Growth in the Middle Grades (Literacy III)	3
ASTL 5705	Assessment of Learning	3
ASTL 5703	Knowledge of the Learner	3
ASTL 5726	Diagnosing Literacy Problems K-8 (Literacy IV)	3
ASTL 5706	Learning Strategies/Instructional Strategies	3
ASTL 5729	Remediation of Literacy Problems K-8 (Literacy V)	3
ASTL 5709	Action Research	3
Total Credit Hours Required for Degree		33

Allied Health

**Master of Science in Allied Health
Department of Allied Health Sciences in
the College of Clinical and Rehabilitative Health Sciences**

Ester L. Verhovsek, Graduate Coordinator

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e-mail: verhovse@etsu.edu

Charles C. Faust, Department Chair

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e-mail: faust@etsu.edu

Faculty:

Randy L. Byington; Shirley J. Cherry; Deborah L. Dotson; Charles C. Faust; K. Shane Keene; Donald A. Samples; Constance R. Sharuga; Ester L. Verhovsek.

Purpose

The purpose of the Master of Science in Allied Health (MSAH) degree program is to prepare allied health professionals for positions in education and administration in their respective health care discipline. The goals of the Master of Science Degree in Allied Health program are as follows:

1. enable allied health practitioners to 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;
2. prepare allied health practitioners to function in a professional manner as a member and representative of the health care team;
3. prepare allied health practitioners to have a basic understanding of administration/management skills as related to their discipline;
4. enable graduates to function as educators in the academic, clinical, and community settings;
5. prepare allied health practitioners to be critical thinkers able to analyze concepts, principles, research, and clinical findings, technologies, and outcomes and apply them to the professional practice as appropriate;
6. provide a quality education in the allied health sciences for the preparation of health professionals for advanced positions or leadership roles.

Program Admission Requirements

Students who apply to the Master of Science Degree in Allied Health must meet all of the requirements of the master's degree as established by the School of Graduate Studies at East Tennessee State University.

They must also meet the following program specific requirements:

- a. Attain a bachelor's degree from a regionally accredited institution (Southern Association of Colleges and Schools or equivalent.)
- b. Hold a professional license in an allied health discipline.
- c. Have a cumulative grade point average of 2.75 or higher on a 4.0 scale or complete the GRE exam with a minimum of 2400 points based on the following formula; sum of the GRE aptitude score (V+Q+A) and the GPA x 500.
- d. Completed GRE exam.
- e. Three professional letters of recommendation.

Admission is based on the GPA, GRE scores, quality of reference letters, strength of background, and available space in the program. The department can grant conditional admission to candidates not meeting all of the minimum requirements. All applicants must submit an official transcript, GRE scores, and letters of reference before their application will be reviewed.

Curriculum

The program of study in the Master of Science in Allied Health consists of 18 hours of major field core, 12 hours of guided electives, and a 6-hour thesis or non-thesis capstone project. The student will work with their advisor to select courses from the guided electives that meet their professional needs and career aspirations. Students have the option of guided electives in allied health administration and education, and public health.

Allied Health Core Requirements

ALHE	5000	Information Technology in Allied Health Sciences	1
ALHE	5100	Interdisciplinary Health Care Teams	2
ALHE	5200	Assessment, Planning, and Evaluation	3
ALHE	5050	Legal & Ethical Issues in Allied Health	3
ALHE	5070	Leadership Theory for Health Care Delivery	3
ALHE	5150	Population Health Issues for the Allied Health Professional	3
ALHE	5500	Methods of Research in Allied Health	3
		Total Hours	18

Guided Electives

(Choose four)

ALHE	5010	Clinical Teaching Strategies	3
ALHE	5060	Allied Health Curriculum Design	3
ALHE	5300	Administration at the Department Level	3
ALHE	5700	Financial & Strategic Planning for ALHE Prof.	3
PUBH	5310	Biostatistics I	3
PUBH	5400	Epidemiology I	3
PUBH	5550	Human Resources Mgmt. in Health Org.	3
PUBH	5900	Grant and Proposal Development	3
		Total Elective Credits	12

Thesis or Non-Thesis Option

ALHE	5800	Advanced Practice Seminar in ALHE	3-6
ALHE	5960	Thesis	3-6
		Total hours	6

Total for Master's Degree 36

The advanced practice seminar option is designed as a culminating clinical experience to provide an alternative to the thesis option. Students will be required to present an advance practice plan and identify a clinical preceptor to their graduate committee prior to beginning their project. Advanced practice seminars include a minimum of 120 clock hours of clinical practice per three hour course in the approved area. Upon completion of the experience, the student will be required to provide a written evaluation on the project. Additionally, the student will be required to perform an oral defense of the findings to their committee.

The thesis option constitutes a significant part of the work toward a master's degree. The thesis must represent a high standard of scholarly inquiry, methodology, techniques, statistics, and literature review. Candidates for degrees are required to present findings to their graduate committee in the form of an oral defense. Students must meet additional thesis requirements as stated in the ETSU Graduate Catalog.

Retention Standards

Students in the Master of Science Degree in Allied Health program must meet the retention standards as set forth for graduate students by the School of Graduate Studies. Grades shall be based on the 4.0 scale as set forth in the Graduate Catalog. A student will be considered deficient for any course grade less than a "C" (2.0), or when their overall grade average is less than a "B" (3.0.) No more than 6 semester hours of "C" grades in the program of study can be applied toward the degree. Students with an overall grade average of less than a "B" (3.0) will be placed on probation for one semester. If their overall grade average does not improve to a "B" (3.0) the following semester, the student will be dismissed from the program. Students must have a cumulative grade point of 3.0 or better in order to register for thesis or advance practice seminar credit.

Graduation Requirements

Students accepted into the Master of Science Degree in Allied Health may select between the thesis and non-thesis option. All students must successfully complete 18 credit hours of allied health core and 12 credit hours in the selected electives. Upon completion of the required coursework, a comprehensive evaluation of the student's performance will be administered in the form of a written examination to determine the level of mastery of their discipline.

Successful completion of a comprehensive examination is necessary prior to enrolling in thesis or advance practice courses. A culminating experience is required of all candidates in the form of 6 credit hours of ALHE 5800 Advance Practice Seminar or ALHE 5960 Thesis. All course work and other requirements for the Master of Science degree in Allied Health must be completed within 6 years from the date of initial enrollment. Students are required to meet additional graduation requirements as stated in the ETSU Graduate Catalog.

**Anatomy and Cell Biology Concentration
(Biomedical Sciences)**

Faculty: * See College of Medicine

Barney Miller, Ph.D., Graduate Coordinator

Department of 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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e-mail: skalko@etsu.edu

Faculty:

Mark J. Airhart; Ronald H. Baisden; Dennis M. Defoe; Fred E. Hossler; Barney Miller; 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.

**Archival Studies Concentration
(Liberal Studies)**

Faculty: *See Liberal Studies

The concentration in archival studies within the MALS 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 (3) categories: Library Science, Management, and Subject Field. A practicum at a local repository is an elective option.

MALS Core for the Archival Studies Concentration

MALS 5000	Foundations in Liberal Studies	1
MALS 5100	Introduction to Interdisciplinary Study	3
MEDA 5800	Information Networks-Resource Sharing or	
MEDA 5850	Managing Content on the Internet	3
MALS 5400	Seminar in Interdisciplinary Research	3
MALS 5950	Special Project in Liberal Studies or	
MALS 5960	Thesis	3
Total MALS Core		13 Credit Hours

Archival Studies Concentration

AVST 5310	Archives History and Issues	3
AVST 5311	Archives Theory and Practice	3
AVST 5312	Archives Conservation	3
MEDA 5750	Information and Records Management	3
Total Archival Studies Hours		12

Guided Electives

Students will choose one (1) of the following media courses:

MEDA 5000	History and Philosophy of Educational Media and Educational Technology	3
MEDA 5720	Organization of Library Media	3
Total Media Hours		3

Students will choose two (2) courses, six (6) credit-hours, from the following Management courses:

MGMT 5010	Essentials of Management	3
BADM 5160	Information Infrastructure	3
PMGT 5100	Introduction to Public Administration	3
MGMT 5020	Legal and Social Environment of Business	3
PMGT 5200	Administrative Law and Practice	3
Total Management Hours		6

Students will choose six (6) credit-hours 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 U.S.	3
HIST 5107	Recent United States-1933 to Present	3
CSCI 5250	Database Design	4
SOAA 5357	Mass Communication and Popular Culture	3
SOCI 5807	Modern Social Theory	3
AVST 5570	Archives Practicum	3
MALS 5900	Directed Studies	1-3
Total Subject Field Hours		6
Total Program Credit Hours		40

**Archival Studies Graduate Certificate
(Liberal Studies)**

Faculty: *See Liberal Studies

The Archival Studies Graduate Certificate is an eighteen (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 MALS program. Please note that the certificate may be completed online. Please contact the Archives Education coordinator for details at 423-439-4223.

Required Archival Studies Courses

Students must take the following three (3) courses

AVST 5310	Archives History and Issues	3
AVST 5311	Archives Theory and Practice	3
AVST 5312	Archives Conservation	3
Total Archival Studies Hours		9

Guided Electives

Students must take three (3) courses from the list below:

AVST 5570	Archives Practicum	3
CSCI 5011	Internet Technology I	3
PMGT 5100	Introduction to Public Administration	3
MEDA 5000	History and Philosophy of Educational Media and Technology	3
MGMT 5010	Essentials of Management	3
HIST 5950	Introduction to Historical Research	3
SOAA 5627	Ethnographic Fieldwork	3
MEDA 5720	Organization of Library Materials	3
MEDA 5750	Information and Records Mgmt	3
Total Elective Hours		9
Total Hours Required		18

With the approval of the Archival Studies Coordinator, students may select ONE elective course not on the list above.

Art and Design

**Master of Arts: Art History and Studio Art
Master of Fine Arts: Studio Art**

Patricia Mink, Graduate Coordinator

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Catherine Murray, Department Chair

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Department of Art and Design website: <http://www.etsu.edu/cas/art/>

Faculty:

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

Department Mission:

The Department of Art and Design is committed to excellence in arts education, teaching students the technical, theoretical, critical, professional, and personal skills necessary to succeed in the visual arts. Achieving the highest quality of academic scholarship and creative research are priorities expected and supported. In service to our community, we seek to promote awareness of the social and cultural significance of the visual arts, within the university, for our region, and the world at large.

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, the Southeastern College Art Conference, 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.

The department offers the Master of Fine Arts (M.F.A.) in studio art and the Master of Arts (M.A.) in art history or in studio art.

The M.F.A. is a professional degree in studio art with specializations available in the following areas: ceramics, drawing, fibers, graphic design, jewelry/metalsmithing, painting, photography, printmaking, and sculpture. The program leading to the degree of M.F.A. has as its goal excellence in the creative production of visual art. The M.F.A. is considered the terminal degree for college or university studio teaching and/or professional work in the field. Each student's program is developed in consultation with his or her area advisor.

The M.A. degree in Studio Art provides students with advanced training in art for purposes or personal enrichment, for entry into an M.F.A. program, or for art teachers wanting to increase their education. Specializations are available in the following areas: ceramics, drawing, fibers, graphic design, jewelry/metalsmithing, painting, photography, printmaking, and sculpture.

The M.A. degree in Art History provides the student with breadth and thoroughness in the study of Art History. It is intended as preparation for additional graduate study in pursuit of a Doctor of Philosophy degree or as the foundation for careers in related areas.

Program Admission Requirements

Application deadline for fall semester: February 15.

All application materials must be sent to the ETSU School of Graduate Studies, Box 70720, Johnson City, TN 37614.

All candidates for the graduate program are strongly encouraged to arrange a personal interview with the faculty member from the area of the student's interest of study.

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 – The prospective M.A. candidates must hold a bachelor's degree with an emphasis in Art

Art History—The applicant for the M.A. concentration in Art History must take the Graduate Record Exam and have a reading knowledge of one foreign language (French, German, Italian, or another appropriate for the student's proposed area of study.) A cover letter stating area of emphasis, current C.V., and 3 letters of recommendation, preferably from former professors and/or other individuals conversant in art history, must also be included with the application.

Art—The applicant for the M.A. concentration in Studio Art must submit 15 digital images 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. All candidates for the graduate program are strongly encouraged to arrange a personal interview with the faculty member from the area of the student's interest of study. These include: painting, drawing, sculpture, printmaking, graphic design, photography, ceramics, fibers, jewelry/metalsmithing, or interdisciplinary.

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 studio area of emphasis clearly identified.
- Current C.V.—Indicate exhibitions, prizes, work experience, student activities or honors, or other activities.
- Three (3) current letters of recommendation—preferably from former art professors and other individuals conversant in the visual arts.
- Artist's Statement – no more than 200 words – indicating the focus of the images presented.
- 20 professional quality jpeg images on disc which is labeled with the applicant's name. Work should be submitted following a sequence of

older to newer work. *This portfolio is the primary means of evaluating the potential graduate student in the studio areas.*

- Identification Sheet for images indicating title, media, size, and date.
- Materials will not be returned; do not submit original art work.

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 credit-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 (9) semester hour intervals).
3. Student not accepted (no option to reapply).

Minimum Degree Requirements

The student's faculty 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, Art History – A minimum of 30 semester credits is required, apportioned as follows: 24 graduate credit-hours in Art History, 3 credit-hours in Art 5950 (Methods of Research), 3 credit-hours in Art 5960 (Thesis). All candidates must defend their written thesis in a final oral examination.

Master of Arts, Studio – A minimum of 30 semester credits is required, apportioned as follows: 15 credit-hours in a major area, 3 credit-hours in art history, 6 credit-hours of advisor-recommended studio electives, 3 credit-hours in Art 5950 (Methods of Research), 3 credit-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 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 credit-hours in graduate studio classes, 30 of these must be in area of emphasis; 9 graduate credit-hours in art history; 3 credit-hours in graduate elective classes; 3 credit-hours in Art 5950 (Methods of Research); 3 credit-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 disc of images of the work in their graduate exhibit before graduation.

Audiology (Clinical and Rehabilitative Health Sciences)

Doctor of Audiology Department of Communicative Disorders in the

College of Clinical and Rehabilitative Health Sciences

Patricia Chase, Ph.D., Graduate Coordinator

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(423) 439-5252

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; 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 credit-hours in the lab sciences (chemistry, biology, or physics).
4. At least six credit-hours in college-level mathematics of which at least 3 credit-hours must be in the study of statistics.
5. At least 6 credit-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 (3) 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 (3) 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 (i.e., 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 audiological 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.

Research Project—All Au.D. students are required to complete and present an original research project. See the Au.D. Handbook (<http://www.etsu.edu/crhs/commdis/documents/AudiologyGradHandbook.doc>) for details regarding this requirement.

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.

Required Courses

CDIS	5010	Neurological Bases of Communication and Cognition	3
CDIS	6100	Instrumentation & Acoustic Measurement	3
CDIS	6110	Anatomy, Embryology, Physiology	3
CDIS	6115	Audiologic Evaluation I	3
CDIS	6140	Amplification Systems I	3
CDIS	6141	Amplification Systems II	3
CDIS	6142	Amplification Systems III	3
CDIS	6145	Pathologies of Auditory System	3
CDIS	6150	Psychoacoustics and Hearing Science	3
CDIS	6160	Audiologic Evaluation II	3
CDIS	6180	Pediatric Audiology	3
CDIS	6195	Electrophysiology	3
CDIS	6196	Electrophysiology II	3

CDIS	6205	SLP for Auditory Students*	3
CDIS	6300	Rehab. Audiology for Children	3
CDIS	6310	Rehabilitative Audiology for Adults	3
CDIS	6330	Auditory Measures of Speech Perception	3
CDIS	6340	Audiology Clinic Practice Mgmt.	3
CDIS	6355	Tinnitus Management	3
CDIS	6360	Vestibular Assessment	3
CDIS	6361	Adv. Vestibular Assess. & Rehab.	3
CDIS	6370	Hearing Conservation	3
CDIS	6390	Audiology in the Medical and Deaf Communities	2
CDIS	6400	Research Methods for CDIS	3
CDIS	6410	Audiology Seminar	3
Total Didactic Hours			75
CDIS	6520	Audiology Clinic (repeatable)	3
CDIS	6590	Externship: Audiology (repeatable)	6-9
Total Clinical Practicum Hours			45

Students may also take electives in Speech Pathology with advisor approval.

Total Hours Required (minimum) 120

**Biochemistry and Molecular Biology Concentration
(Biomedical Sciences)**

David Johnson, Ph.D., Graduate Coordinator

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Michael Sinensky, Ph.D., Department Chair

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Faculty:

W. Scott Champney; Olga A. Cabello; M. Lou Ernst-Fonberg; Zhihua Han; David A. Johnson; Phillip R. Musich; 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.

Biology

**Master of Science
Concentrations in Biology, Microbiology, and Paleontology
Concentration in Biology**

Tom Laughlin, Ph.D., Graduate Coordinator

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Box 70703
(423) 439-8459
e-mail: laughlin@etsu.edu

Faculty:

Zulfigar Ahmad; Fred Alsop; Ranjan Chakraborty; Allan Forsman; T. J. Jones; Karl Joplin; Istvan Karsai; Dharendra Kumar; Tom Laughlin; Foster Levy; Yusheng (Chris) Liu; Timothy McDowell; Cecilia McIntosh; Hugh Miller; Darrell Moore; Rebecca Pyles; Leonard Robertson; Blaine Schubert; James Stewart; Lev Yampolsky; Michael Zavada.

**Master of Science
Concentration in Microbiology**

Eric Mustain, Ph.D., Graduate Coordinator

249 Lamb Hall
Box 70673
(423) 439-4571
e-mail: mustain@etsu.edu

Faculty:

Ranjan Chakraborty; Allan Forsman; Michael Gallagher; Bert Lampson; Foster Levy; Eric Mustain; Laraine Powers, Edward Onyango; Padmanabhan Rengasamy.

The Master of Science degree program in Biology is designed to provide a broad-based education 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. Biometry 5500 is required. 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 (3) of the 30 credits. BIOL 5900 and/or 5910 may be taken for a total of nine (9) credit-hours.

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 re-evaluation 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 Paleontology

Blaine W. Schubert, Ph.D., Graduate Coordinator

200B Hutcheson Hall
 Box 70636
 (423) 439-7883
 e-mail: schubert@etsu.edu

Faculty:

Jay Franklin; Yusheng (Chris) Liu; Blaine Schubert; Steven Wallace; Michael Whitelaw; Michael Zavada.

The Master of Science degree program in Paleontology is designed to prepare students for conducting research in one of the many realms of Paleontology with particular emphasis on Vertebrate Paleontology and Paleobotany. Students will fully exploit the paleontologic resources provided by the Gray Fossil Site, local caves, and other deposits. This concentration will provide an alternate track to Geology for the purpose of training in Paleontology and will foster interdisciplinary research between both faculty and students from East Tennessee State University and other institutions.

Core Course Requirements

BIOL 5907	Biological Research Methods	2
BIOL 5700	Seminar (Biology)	1
BIOL 5X00	Topics in Biology	3
	(Students take one: 5100, 5200, 5300, or 5400.)	
BIOL 5960	Thesis	3
GEOL 5700	Seminar (Geology)	1
GEOL 5350	Statistical Methods in Paleontology	3

Concentration Requirements

GEOL 5100	Lower Vertebrate Paleontology	4
GEOL 5150	Higher Vertebrate Paleontology	4
GEOL 5307	Field Methods in Paleontology	3
BIOL 5480	Paleobotany	3
Electives	.....	3
(To be determined by student's committee and/or committee chair, including BIOL 5910.)		

Total Credits Required 30

Biomedical Sciences

Doctor of Philosophy—Concentrations in Anatomy, Biochemistry, Microbiology, Pharmacology, and Physiology

Mitchell Robinson, Ph.D., Associate Dean for Graduate Studies

and Program Director
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 e-mail: robinson@etsu.edu

Beverly Sherwood, Admissions Coordinator

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 e-mail: sherwood@etsu.edu

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

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 robinson@etsu.edu

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Department
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Chair, Asst. Dean
 (423) 439-2010

Anat. & Cell Biology
 (423) 439-2009

Bio. & Molec. Biology
 (423) 439-2027

Microbiology
 (423) 439-6293

Pharmacology
 (423) 439-6336

Physiology
 (423) 439-2046

Clinical Departments
 (423) 439-6382

The Biomedical Science Program of the James H. Quillen College of Medicine offers courses of study leading to 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.

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 credit-hours are required beyond the baccalaureate degree. For admission to candidacy, at least 30 of the minimum 60 credit-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 Requirements

BIOM	6010	Biomedical Science I - Molecular Organization of Cells	3
BIOM	6020	Biomedical Science II - Gene Expression and Regulation	3
BIOM	6030	Biomedical Science III - Cellular Anatomy and Physiology	3
BIOM	6040	Biomedical Science IV - Cell and Organ Interactions	3
BIOM	6210	Scientific Communication I	1
BIOM	6220	Scientific Communication II	1
BIOM	6110	Introduction to Biomedical Research	1
BIOM	6120	Laboratory Rotations	3
MDED	6010	Biometry and Biomedical Computing I	3
BIOM	6300	Scientific Ethics	1
Total Core Hours			22
Dissertation Research			15 - 21
Concentration			9
Three advanced courses (<i>minimum</i>)			
Guided electives			4
Two departmental seminar courses (<i>general</i>)			
Electives (<i>minimum</i>)			4
Total Hours for Ph.D. (<i>minimum</i>)			60

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 credit-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

**See Anatomy and Cell Biology Concentration*

Biochemistry and Molecular Biology

**See Biochemistry and Molecular Biology Concentration*

Microbiology

*See *Microbiology Concentration*

Pharmacology

*See *Pharmacology Concentration*

Physiology

*See *Physiology Concentration*

Biostatistics Concentration

*See *Biostatistics and Epidemiology*

**Biostatistics and Epidemiology
(BIEP)**

Master of Public Health (MPH)

Concentrations in Biostatistics and Epidemiology

**Doctor of Public Health (DrPH)
Concentration in Epidemiology**

**Biostatistics Graduate Certificate
See Biostatistics Graduate Certificate**

**Epidemiology Graduate Certificate
See Epidemiology Graduate Certificate**

James L Anderson, M.D., M.P.H., Ph.D., Interim Chair, Department of
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Masters of Public Health (MPH)

Brian Martin, Ph.D., M.B.A., M.P.H. Coordinator
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e-mail: martinb@etsu.edu

Faculty: Timothy Aldrich, James Anderson, Toni Bounds, Wanzer Drane,
Xuefeng Liu, Kesheng Wang, Tiejian Wu.

Purpose

The Master of Public Health (MPH) is a professional degree that offers competency-based preparation for public health practice in five different concentration areas – Biostatistics, Community Health, Environmental Health, Epidemiology, and Health Services Administration. Each concentration provides students with the required knowledge and skills to work in the respective area.

The Department of Biostatistics and Epidemiology offers the MPH concentrations for biostatistics and epidemiology. For the other concentrations, please see the appropriate department.

Many courses are available in an online format through distance education technology. The MPH concentration in Epidemiology can be obtained in a fully online format.

Biostatistics is a quantitative field in which students learn how to collect, manage, and analyze public health data. Students taking this concentration will learn basic analytical methods and the use of statistical software. Those with knowledge and skills in biostatistics are important in helping to analyze data so that public health prevention and control methods can be used to prevent disease and promote health. Students taking this concentration should have a strong aptitude and skills in mathematics.

Epidemiology is sometimes referred to as the “basic science of public health”. Epidemiologists are health professionals who study health, illness, and injuries in human populations for the purpose of identifying risk factors and causes. Epidemiologists use the knowledge gained to guide disease prevention and control activities. Students taking the epidemiology concentration should have strong skills in mathematics and be analytic and organized in their approach to problem solving.

Admission Requirements

See Public Health

Note: Applications for all programs in the Department of Biostatistics and Epidemiology are to be sent to the School of Graduate Studies. Please see the ETSU Graduate Studies web site for instructions, requirements, and application forms.

Degree Requirements*

Core MPH Course Requirements

PUBH 5020	Philosophy of Public Health	1
ENVH 5100	Environmental Health Practice I	3
PUBH 5200	Social & Behavioral Foundations of Public Health	3
PUBH 5310	Biostatistics I	3
PUBH 5400	Epidemiology I	3
PUBH 5500	Health Services Administration	3
Total MPH Core Hour Requirements		16

Biostatistics Concentration Requirements

Required Courses

PUBH 5350	Biostatistics II	3
MATH 5710	Statistical Methods I	3
MATH 5720	Statistical Methods II	3
PUBH 5360	Clinical Research: Design and Analysis	3
Total Hours Required Biostatistics Concentration		12

Electives – Select 3 courses approved by the student’s advisor:

Total Elective Hours 9

PUBH 5850 Public Health Program Field Experience 6

**Total Hours Required MPH with
Biostatistics Concentration** 43

Epidemiology Concentration Requirements

Required Courses

PUBH 5350	Biostatistics II	3
PUBH 5405	Epidemiology II	3
PUBH 5420	Epidemiology of Chronic Disease	3
PUBH 5430	Epidemiology of Infectious Disease	3
Total Hours Required Epidemiology Concentration		12

Electives – Select 3 courses approved by the student’s advisor

Total elective hours 9

PUBH 5850 Public Health Program Field Experience 6

**Total Hours Required M.P.H. with
Epidemiology Concentration** 43

Doctor of Public Health

Robert Pack, Ph.D., M.P.H., Dr.P.H. Coordinator

College of Public Health
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Purpose

The Doctor of Public Health (Dr.P.H.) program offers an advanced professional degree designed for those who wish to pursue or further their career in public health practice. It prepares practitioners with competence in administration, advocacy, problem solving, research, and communication. Graduates are qualified to serve in a variety of leadership capacities at state, national, and international levels, enhancing the public’s health in both rural and urban settings. The Department of Biostatistics and Epidemiology offer the Dr.P.H. degree with a concentration in epidemiology. Graduates will have advanced professional skills and knowledge in the identification of causes of health and illness in human populations and the application of this knowledge to disease prevention and control.

Admission Requirements

(See Public Health)

Note: Applications for all programs in the Department of Biostatistics and Epidemiology are to be sent to the School of Graduate Studies. Please see the ETSU Graduate Studies web site for instructions, requirements, and application forms

Degree Requirements

Core DrPH Courses

PUBH 5350	Biostatistics II	3
PUBH 5405	Epidemiology II	3
PUBH 6100	Environmental Concerns in Public Health	3
PUBH 6110	Social and Behavioral Determinants of Health and Disease	3
PUBH 6130	Public Health Leadership, Policy Development, and Ethics	3
PUBH 6150	Evaluation Research in Public Health	3
PUBH 6160	Systems Approaches to Public Health Issues	3
PUBH 6170	Research Applications in Public Health	3
PUBH 6195	Seminar in Public Health	1
Total Core Hour Requirements		25

Epidemiology DrPH Concentration Courses

MATH 5307	Sampling and Survey Techniques	3
PUBH 6410	Advanced Multivariate Analysis	3
PUBH 6420	Applied Epidemiologic Analysis	3
PUBH 6435	Field Epidemiology	3
Total Concentration Hour Requirements		12

Epidemiology DrPH Electives - selected in consultation with program academic advisor 6

Suggested Electives:

PUBH 6440	Cardiovascular Epidemiology	3
PUBH 6450	Cancer Epidemiology	3
PUBH 6460	Reproductive & Perinatal Epidemiology	3

Culminating Experience for DrPH in Epidemiology Concentration

PUBH 6850	Doctor of Public Health Practicum	6
PUBH 6960	Doctor of Public Health Dissertation	9
Total Culminating Experience Hour Requirements		15

Total Credit Hours Required for DrPH in Epidemiology 58

Graduation Requirements

Completion of the Dr.P.H. degree will require (1) a minimum of 58 semester credit hours of coursework beyond the master's degree as described; (2) a minimum cumulative grade point average of 3.0 on a 4.0 scale; (3) passing doctoral comprehensive candidacy examination; (4) satisfactory completion of a practicum; (5) passing the preliminary oral examination; (6) completing a dissertation of publishable quality; and (7) passing the final dissertation defense. All students must pass Institutional Review Board certification sponsored by ETSU if working with human subjects, as well as HIPAA certification if their research/practicum falls under the requirements to secure the privacy and confidentiality of patient records.

**Biostatistics Graduate Certificate
(Department of Biostatistics and Epidemiology)**

James L. Anderson, M.D., M.P.H., Ph.D., Interim Chair,

Department of Biostatistics and Epidemiology
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This graduate certificate in biostatistics is designed to meet the needs of public health practitioners who desire additional training in biostatistics. It provides training in quantitative skills used in health departments, managed care organizations, community-based organizations, international health agencies, and state and federal agencies.

Upon completion of this program, students will be able to:

- Use statistical techniques in the design of observational and experimental studies found in public health research and practice;
- Develop the knowledge, skills, and abilities in the use of statistical techniques and common statistical software packages for the analysis of health data;
- Apply probability distributions to public health outcomes; and

- Effectively communicate statistical methods, results, and conclusions with other public health professionals and the community at large.

Admission to the Program

The criteria for admission to the Biostatistics 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:

1. an application;
2. three (3) letters of recommendation; and
3. official transcripts from all colleges attended.

All applications will be evaluated by an admission committee. Letters of recommendation are waived for applicants of the Tennessee Workforce Development Consortium.

Course Requirements

Major Field Core

PUBH 5030	Overview of Public Health	3
PUBH 5310	Biostatistics I	3
PUBH 5400	Epidemiology I	3
Total Major Field Core Hours		9

Concentration

PUBH 5350	Biostatistics II	3
PUBH 5410	Statistical Software for Health Professionals	3
Total Concentration Hours		6
Total Required Coursework Hours		15

The Biostatistics graduate certificate is awarded to students who have been officially admitted to the program and have successfully completed 15 credit hours of approved coursework. A student may use a course from the following list to replace a required course previously taken at another institution, or completed in fulfillment of another degree at ETSU.

PUBH 5405	Epidemiology II	3
MATH 5287	Applications of Statistics	3
PUBH 5460	Environmental/Occupational Epidemiology	3
PUBH 5900	Grant and Proposal Development	3

Bluegrass, Old Time, and Country Music

Raymond McLain, Director

304 Memorial Hall (Brooks Gym)
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(423) 439-7072
e-mail: mclain@etsu.edu

While ETSU does not offer a graduate program in Bluegrass, Old Time, and Country Music, these courses may count toward programs of study in various disciplines, including the Master of Arts in Liberal Studies. Courses may also be taken for personal enrichment.

BLUE 5147	Bluegrass and America's Music	3
BLUE 5167	Bluegrass - The First Generation	3
BLUE 5410	Individual Instrumental Instruction	1-3
BLUE 5510	Graduate Ensemble	1-3
BLUE 5900	Independent Study	1-3
BLUE 5957	Special Topics	1-6

**Business Administration
(Master of Business Administration)**

Martha M. Pointer, Ph.D., Associate Dean

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Faculty:

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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 for the Traditional M.B.A.

A student applying to the traditional 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 completed application 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.

Admission Requirements for the Accelerated M.B.A.

The accelerated M.B.A. is designed for students who have at least three years of professional managerial experience and who desire a rapid-paced, alternative delivery of the M.B.A. courses. A student applying to the accelerated version of the M.B.A. program must be eligible for admission to the university as a graduate student. An applicant must have at least three years of professional managerial experience and the support of his or her supervisor. Admission criteria include the applicant's undergraduate grade point average, professional managerial experience as indicated on a current resume, three letters of recommendation, a letter of support from the applicant's supervisor, an interview, and an essay.

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
ECON	5000	Essentials of Economics	3
ECON	5010	Essentials of Statistics	3
FNCE	5000	Essentials of Finance	3
MGMT	5010	Essentials of Management	3
MKTG	5010	Essentials of Marketing	3
MGMT	5020	Legal & Social Environment	3
MGMT	5030	Quantitative Analysis for Operations Management	3
Maximum			24

Traditional M.B.A. Core Courses

BADM	5140	Data Analysis and Modeling	3
BADM	5150	Accounting Information for Decision Making	3
BADM	5180	Economics for Managers	3
BADM	5210	Operations and Technology Strategy	3

BADM	5220	Global Business	3
BADM	5230	Strategic Leadership	3
BADM	5400	Market Strategy	3
BADM	5430	Applied Corporate Finance	3
BADM	5500	Strategic Management Process	3
Electives and Capstone Electives**			6
BADM	5800	Strategic Experience	3
Total Hours			36

* 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 traditional 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 traditional 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 traditional M.B.A. 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.

Accelerated M.B.A. Core Courses

AMBA	5140	Data Analysis and Modeling	3
AMBA	5150	Account. Info. for Decision Making	3
AMBA	5180	Economics for Managers	3
AMBA	5210	Operations and Tech. Strategy	3
AMBA	5220	Global Business	3
AMBA	5230	Strategic Leadership	3
AMBA	5400	Market Strategy	3
AMBA	5430	Applied Corporate Finance	3
AMBA	5500	Strategic Management Process	3
Electives and Capstone Electives			6
AMBA	5800	Strategic Experience***	3
Total Hours			36

* 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 non-business 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.

The accelerated M.B.A. program will meet every third weekend on Friday evenings and all day on Saturday. Students in the accelerated M.B.A. program will complete three courses in each of the four twelve-week sessions. An orientation session for the accelerated M.B.A. students will be held on the Saturday prior to the beginning of classes. The entire accelerated M.B.A. program may be completed in one year. Students enrolled in the accelerated M.B.A. will pay a differential fee for the accelerated courses.

Students enrolled in the accelerated M.B.A. program are not eligible for Graduate Assistantships or Tuition Scholarships.

Business Administration Graduate Certificate

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The Business Administration Graduate Certificate (B.A.G.C.) 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 B.A.G.C. would be closer to meeting the requirements for one of these two degree programs.

Admission Requirements

Applicants for admission to the B.A.G.C. 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); 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 B.A.G.C. 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:

B.A.G.C. 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 Credit Hours Required 15

* The prerequisite for FNCE 5000 is ACCT 5000 or equivalent.

** Prerequisites for MGMT 5030 are ECON 5010 and 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 Business Administration Graduate Certificate 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.

Chemistry**Chu-Ngi Ho, Ph.D., Graduate Coordinator**

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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 a career 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 chemistry 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. A maximum of nine 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. CHEM 5450 does not count toward the required 30 credit hours. 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 regularly even if they are not formally enrolled for credit.

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 credit hrs.) in the chosen area of concentration and at least one core course in each of the remaining three (3 credit hrs. each) for a total of 15 credit-hours.

City Management

**See Public Administration*

Clinical Nutrition

Master of Science in Clinical Nutrition

Elizabeth Lowe, Graduate Coordinator

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Faculty:

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The degree programs offered by this department are pending Tennessee Board of Regents approval for transfer to other departments: Nutrition and Foods to the Department of Allied Health; Merchandising to the Department of Management and Marketing; and Interior Design to the Department of Engineering Technology, Surveying, and Digital Media. The Family and Consumer Sciences Education option is pending termination.

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 initial 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. Completion of the 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 grading 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. 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 12 different clinical, community and food service management sites. The internship didactic coursework begins in mid-July and ends the following May, while 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) 439-7537.

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/capstone project.

Nutrition Requirements 15 Credit Hours

FACS	5410	Seminar in Nutrition	3
FACS	5420	Maternal-Child Nutrition	3
FACS	5430	Complex Adult Nutrition Care	3
FACS	5450	Advanced Nutrition Therapy	3
PUBH	5400	Epidemiology	3

Core Requirements 12-15 Credit Hours

Students will choose one (1) of the following research courses:

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

Students will choose one (1) of the following science courses:

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

Students will choose one (1) of the following statistics courses:

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

Students will choose one (1) of the following options for culminating experience:

Thesis Option:

FACS	5960	Thesis	6
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Non-thesis Option:

FACS	5460	Capstone Research Project	3
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Guided Electives

Thesis Option	3
Non-thesis Option	9

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

FCNU	5507	Social Concerns and Women's Health	3
FCNU	5807	Global Health Issues	3
IDGE	5000	Introduction to Normal Aging	3
PEXS	5655	Sports Nutrition and Ergogenic Aids	3
PEXS	5650	Advanced Concepts in Wellness Promotion	3
ENVH	5607	Food Sanitation Principles	3
PMNU	5008	Alternative Health Practices	3
PMNU	5110	Interdiscip. Approach to Bioethical Issues	3
PUBH	5505	Managing Health Care	3
PUBH	5110	Assessment of Individual and Community	3
PUBH	5401	Rural Health Issues	3
PUBH	5130	Planning and Implementation of Community Health Programs	3
PUBH	5377	Health Communication	3
PUBH	5525	Health Services Delivery and Organization	3
PUBH	5007	Principles and Practices of Patient Education ...	3
PUBH	5607	Gerontology and Health	3
Total - Thesis option			33 Credit Hours
Non-Thesis Option			36 Credit Hours
Requirements for Dietetic Internship			
*FACS	5421-23	Lifespan Nutrition Practicum	6
*FACS	5431-33	Medical Nutrition Therapy Practicum	6
*FACS	5451-53	Nutrition & Food Systems Management Practicum	6

Clinical Psychology (Ph.D.)

Faculty: *See *Psychology, Clinical*

Communication

Master of Arts in Professional Communication

Web Page: <http://www.etsu.edu/cas/comm/programs/graduate.jsp>

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In addition to its ACEJMC undergraduate accredited program in mass communication and its baccalaureate programs in speech and theatre, the department offers a Master of Arts in Professional Communication.

In seeking your master's in Professional Communication, you may select from an array of courses in the department's three concentrations, Mass Communication (Advertising, Journalism, and Public Relations), Speech, and Theatre. Our graduates have gone on to a variety of fulfilling careers including positions in advertising, broadcasting, journalism, public relations, client relations, theatrical performance, professional stagecraft, and college education. Others have gone to doctoral work at nationally ranked institutions.

The Mass Communication emphasis offers you an interdisciplinary foundation in theory and application. You will work and learn with avid researchers and professionals in the areas of advertising, broadcasting, journalism, and public relations. Following a Speech emphasis prepares you for work in a broad range of fields that require the ability to work with diverse populations, lead others, articulate ideas and arguments effectively, and critically analyze messages. A Theatre focus provides you with the opportunities for studying theatre as a discipline as well as developing your creative skills. We encourage those focusing on Theatre to complete a creative thesis such as performing a one-person show, directing a show, producing a script, or completing a design project.

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.
 When selecting persons to write recommendation letters, please choose people who can address your academic/intellectual abilities in the discipline (e.g., professors and/or professionals). Strongly consider supplying at least two (2) letters from former or current professors, especially from those within the discipline. Letters from professionals should address the applicant's work ethic, ability to work autonomously, potential for intellectual growth, and applicable academic skills (e.g., research and writing abilities).
4. A brief application essay of approximately 150-300 words (required by Graduate School).

In the application essay, the applicant should be certain to express why the applicant desires a Master in Professional Communication, referencing possible topics of interest identified in the PCOM program. The essay is also an opportunity for the applicant to highlight or address strengths and/or weaknesses in the application materials (e.g., GRE and GPA scores).

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
Emphasis*	6-9
Cognate	9
Thesis*	3-6
or	
Approved Communication Elective	3
Total Hours Required:	39

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

Communication Core

SPCH 5950 Comm. Research Methods	3
SPCH 5330 Applied Comm. Theory	3
MCOM 5037 Communications Law	3
or	
MCOM 5030 Media and First Amendment	3
MCOM 5040 Seminar in Communications	3
5000-level Dept. of Comm. Topics Course	3
5000-level Dept. of Comm. Elective	3
Total Communication Core:	18

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 Credit Hours

Cognate Areas of Emphasis

Nine (9) 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 Credit Hours

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

Total: Thesis/Approved Elective 3-6 Credit Hours

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. Students failing either the oral or the written examination will be permitted to reschedule the examination no sooner than one semester later. Examinations are not offered during the summer.

Communicative Disorders

Doctor of Audiology

**See Audiology*

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Master of Science in Speech Pathology

**See Speech Pathology*

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Faculty:

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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 lifespan, 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.

**Community Agency Counseling Concentration
(Counseling)**

**See Counseling.*

**Community Health
(COHE)**

**Master of Public Health
(Community Health Concentration)**

**Doctor of Public Health
(Community Health Concentration)**

Rural Health Graduate Certificate

James Florence, Dr.P.H., C.H.E.S., Associate Professor and Interim Chair, Department of Community Health
College of Public Health
318 Lamb Hall
Box 70674
(423) 439-4332
e-mail: florence@etsu.edu

Master of Public Health (M.P.H.)

Brian Martin, Ph.D., M.B.A., M.P.H. Coordinator

College of Public Health
42 Lamb Hall
Box 70264
(423) 439-4429
e-mail: martinb@etsu.edu

Faculty:

James Florence; Joel Hillhouse; Mary Ann Littleton; Rob Pack; Michael Stoots.

M.P.H. Purpose

The Master of Public Health (M.P.H.) in Community Health is a professional degree that offers competency-based preparation for public health practice in population-focused health education and health promotion. It prepares practitioners who can develop, implement, and evaluate community-based interventions and work to establish effective collaborative organizational and community partnerships.

The Department of Community Health offers the MPH concentration in Community Health. For information on MPH concentrations in other areas see the departments of Biostatistics and Epidemiology, Environmental Health, or Health Services Administration.

**M.P.H. Program Admission Requirements
(See Public Health)**

M.P.H. Degree Requirements

Core Course Requirements

PUBH 5020	Philosophy of Public Health	1
ENVH 5100	Environmental Health Practice I	3
PUBH 5200	Social and Behavioral Foundations of Public Health	3
PUBH 5310	Biostatistics I	3
PUBH 5400	Epidemiology I	3
PUBH 5500	Health Services Administration	3
Total Core Hour Requirements		16

Community Health Concentration

Required Courses

PUBH 5110	Community Health Assessment Research	3
PUBH 5377	Health Communication	3

One of the following courses:

PUBH 5120	Health Program Planning and Evaluation	3
PUBH 5125	Rural Health Research and Practice	3

One of the following courses:

PUBH 5130	Consulting and Implementation of Health Programs and Services	3
PUBH 5135	Rural Community Based Health Projects	3

**Total Hours Required Community Health
Concentration**

12

Electives (selected in consultation with academic advisor) ... 9

Field Experience

PUBH 5850	Public Health Field Experience	6
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**Total Hours Required Community
Health Concentration**

43

Doctor of Public Health (Dr.P.H.)

The Doctor of Public Health (Dr.P.H.) program offers an advanced professional degree designed for those who wish to pursue or further their career in public health practice. It prepares practitioners with competence in administration, advocacy, problem solving, research, and communication. Graduates are qualified to serve in a variety of leadership capacities at state, national, and international levels, enhancing the public's health in both rural and urban settings. Two areas of concentration currently exist within the degree - community health and epidemiology. For more information on admission and degree requirements for a Dr.P.H. in Epidemiology see the Department of Biostatistics and Epidemiology. Information concerning the concentration in Community Health Sciences appears below.

Dr.P.H. Program Admission Requirements
(Admission deadline: March 1)

Admission to the Doctor of Public Health program is competitive and based on scholarship, letters of recommendation, and evidence of potential success, including:

1. Evidence of successful completion of an MPH or equivalent degree in a related field from a regionally accredited institution of higher learning in the United States.
2. Application form and accompanying fee.
3. One official transcript of all previous undergraduate and graduate work (except previous coursework completed at ETSU).
4. A personal essay that includes a written statement of career and educational goals, professional experience, and prospective area of interest for the dissertation.
5. Official scores from the Graduate Record Examination (GRE) taken within the past 5 years (except for those with a doctoral degree from a regionally accredited institution within the United States). Preferred scores are at or above the 50th percentile for verbal and quantitative sections.
6. Four letters of recommendation from individuals who can attest to the applicant's academic, professional, or personal achievement, competence, ethics, and potential.

Note: Applications are accepted once a year only, for entry into the fall semester. Completed applications must be received in the School of Graduate Studies by March 1 for consideration.

Dr.P.H. Degree Requirements
Core Courses

PUBH 5350	Biostatistics II	3
PUBH 5405	Epidemiology II	3
PUBH 6100	Environmental Concerns in Public Health	3
PUBH 6110	Social and Behavioral Determinants of Health and Disease	3
PUBH 6130	Public Health Leadership, Policy Development, and Ethics	3
PUBH 6150	Evaluation Research in Public Health	3
PUBH 6160	Systems Approaches to Public Health Issues ..	3
PUBH 6170	Research Applications in Public Health	3
PUBH 6195	Seminar in Public Health	1
Total	Core Hour Requirements	25

Community Health Concentration

PUBH 6210	Health Assessment and Surveillance Research	3
PUBH 6220	Methods in Community Health Research	3
PUBH 6240	Organizing Communities for Health Action	3
PUBH 6250	Evidence-Based Public Health: Best Practices in Community Health	3
Total	Concentration Hour Requirements	12

Electives (selected in consultation with academic advisor) ... **6**

Culminating Experience

PUBH 6850	Doctor of Public Health Practicum	6
PUBH 6960	Doctor of Public Health Dissertation	9

Total	Culminating Experience Hour Requirements	15
Total	Credit Hours Required for Dr.P.H.	58

Dr.P.H. Graduation Requirements

Completion of the Dr.P.H. degree will require (1) a minimum of 58 semester credit hours of coursework beyond the master's degree as described; (2) a minimum cumulative grade point average of 3.0 on a 4.0 scale; (3) passing the doctoral comprehensive candidacy examination; (4) satisfactory completion of a practicum; (5) passing the preliminary oral examination; (6) completing a dissertation of publishable quality; and (7) passing the final dissertation defense. All students must pass Institutional Review Board certification sponsored by ETSU if working with human subjects, as well as HIPAA certification if their research/practicum falls under the requirements to secure the privacy and confidentiality of patient records.

Computer and Information Sciences

Master of Science in Computer Science

Martin L. Barrett, Ph.D., Graduate Coordinator

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Phillip Pfeiffer, Ph.D., Associate Graduate Coordinator

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Terry A. Counterline, D.Ed., Department Chair

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Faculty:

Gordon Bailes; Gene Bailey; Martin Barrett; Terry Counterline; Phillip Pfeiffer; Tony Pittarese; Kellie Price; Jeffrey Roach; Donald Sanderson; Suzanne Smith; David Tarnoff; Christopher Wallace; Ron Zucker.

In addition to its CSAB-accredited B.S. program in computer science, the department offers a Master of Science (M.S.) degree program in computer and information sciences with two concentrations: applied computer science and information sciences.

Note: The department's course offerings and requirements (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 that 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 79 (Internet based), 213 (computer based), or 550 (paper) is required as well as a GRE verbal score of at least 400, a GRE quantitative score of at least 400, and a total of at least 1050 for verbal plus quantitative.
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 committee's chair 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 to take 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*).

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 that is offered at both levels must register at the 5XX7 level. Students who wish to count a 5XX7 course as an elective should check with the graduate coordinator about that course's standing before enrolling; courses that are not explicitly listed as possible electives are treated on a case-by-case basis, and some are not eligible to be counted as electives. A course taken for undergraduate-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 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 probability and statistics, discrete structures, and for the applied computer science concentration basic calculus.
2. Computer programming, including problem analysis, algorithm, synthesis, and competence in data structures, with knowledge of a high level programming language and for the applied computer science concentration assembly language.
3. Undergraduate-level coursework in database management systems. The applied computer science concentration requires additional work in file processing, computer architecture, and operating systems. The information technology track requires additional coursework in networking and web programming.
4. Some graduate courses have additional or special prerequisites.

Common Core Requirements 10 Credit Hours

CSCI 5200 Software Systems Engineering	3
CSCI 5300 Software Design	3
CSCI 5230 Software Project Management	3
CSCI 5520 Research Methods in Computer Science	1

Capstone Requirements 9 Credit Hours

Choose one (1) sequence from the following:

Non-Thesis Option

CSCI 5910 Software Development Project I	3
CSCI 5920 Software Development Project II	3
CSCI 5930 Software Development Project III	3

or

Thesis Option

CSCI 5550 Directed Research 1	3
CSCI 5551 Directed Research 2	3
CSCI 5960 Thesis	3

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.

Concentration Requirements 12 Credit Hours

CSCI 5150 Topics in Distributed Systems	3
CSCI 5220 Software Verification and Validation	3
CSCI 5250 Database Design	3
CSCI 5620 Analysis of Algorithms	3

Guided Electives 6 Credit Hours

Select six (6) credit-hours from the following:

CSCI 5100 Computer Architecture	3
CSCI 5157 Interactive Graphics	3
CSCI 5217 Ethical Issues in Computing	3
CSCI 5317 Internet and Computer Law	3
CSCI 5360 Network and System Administration	3
CSCI 5417 Introduction to System Administration	3
CSCI 5460 Network and Information Security	3
CSCI 5610 Formal Languages and Computational Complexity	3
CSCI 5710 E-Commerce Implementation	3
CSCI 5720 Enterprise and E-Business Integration	3
DIGM 5831 Interactive Multimedia	3
MATH 5340 Graph Theory and Its Applications	3

Total Hours Required 37

Note: If a student counts 5317 as one elective, then some 5xx7 courses may not be counted as the student's second elective. Please check with the graduate coordinator for specifics.

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.

Concentration Requirements 12 Credit Hours

CSCI 5710 E-Commerce Implementation	3
CSCI 5720 Enterprise and E-Business Integration	3
CSCI 5360 Network and System Administration	3
CSCI 5460 Network and Information Security	3

Guided Electives 6 Credit Hours

Select six (6) credit-hours from the following:

CSCI 5100 Computer Architecture	3
CSCI 5150 Topics in Distributed Systems	3
CSCI 5157 Interactive Graphics	3
CSCI 5217 Ethical Issues in Computing	3
CSCI 5317 Internet and Computer Law	3
CSCI 5220 Software Verification and Validation	3
CSCI 5250 Database Design	3
CSCI 5417 Introduction to System Administration	3
CSCI 5610 Formal Languages and Computational Complexity	3
CSCI 5620 Analysis of Algorithms	3
DIGM 5831 Interactive Multimedia	3
MATH 5340 Graph Theory and Its Applications	3

Total Hours Required 37

Note: If a student counts 5317 as one elective, then some 5xx7 courses may not be counted as the student's second elective. Please check with the graduate coordinator for specifics.

Oral Examination

All students must also complete a final oral examination, with a mark of 80% or better in each subject area, within a year of completing their coursework. This examination, which will cover material from the seven courses in the student's core curriculum, will be administered by the graduate coordinator or a duly appointed member of the department's faculty. Please consult with the department for more information about the procedures that govern the exam.

Counseling

Master of Arts in Counseling

Janna Scarborough, Ph.D., Associate Professor, Program Coordinator

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 Box 70548
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 e-mail: scarboro@etsu.edu

Teah Moore, Ph.D., Assistant Professor and Elementary and Secondary School Counseling Coordinator

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Patricia Robertson, Ed.D., Professor and Chair, Human Development and Learning and Higher Education Coordinator

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Brent Morrow, Ph.D., Associate Professor, Marriage and Family Therapy Coordinator

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 Box 70548
 (423) 439-4197
 e-mail: morrowb@etsu.edu

Clifton Mitchell, Ph.D., Professor and Community Agency Coordinator

322 Warf-Pickel Hall
 Box 70548
 (423) 439-4197
 e-mail: mitchelc@etsu.edu

Faculty:

James Bitter; Graham Disque; Clifton Mitchell; Teah Moore; Brent Morrow; Patricia Robertson; Janna Scarborough.

The counseling program is designed for the advanced preparation of personnel to serve children, adults, and families in various school and community agency settings. The counseling program offers four (4) concentrations: community agency counseling, marriage and family therapy, school counseling, and higher education. Emphasis is placed upon assisting students to develop a broad range of counseling skills that are applicable in a variety of professional settings. Students are admitted into the counseling program once a year in the fall or summer semesters. To be considered for summer or fall enrollment, the early admission application deadline is February 15th (recommended) and the regular admission deadline is April 1st. A minimum of 48 credit-hours are required to complete the Master of Arts degree in Counseling. The School Counseling, Community Agency Counseling, and Higher Education options are accredited by The Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Community Agency Counseling

Clifton Mitchell, Ph.D., Professor and Community Agency Coordinator

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 Box 70548
 (423) 439-4197
 e-mail: mitchelc@etsu.edu

Community Agency Counseling—This program is for students seeking preparation for counseling in community agency settings. Electives will be chosen from disciplines relevant to the area of professional interest of each student. Graduates who have completed the concentration in community agency counseling will demonstrate professional skills for working in community mental health agencies, substance abuse centers, correctional facilities, employee assistance programs, hospice services, or other human service settings.

Specific Requirements

Core Requirements

HDAL 5100	Human Relations and Group Process	3
HDAL 5110	Social & Cultural Foundations in Counseling	3
HDAL 5230	Advanced Developmental Psychology	3
HDAL 5430	Legal & Ethical Issues	3
HDAL 5950	Methods of Research	3
Total Core Hours Required		15

Concentration Requirements

HDAL 5150	Career Development	3
HDAL 5250	Counseling in Community Agencies	3
HDAL 5540	Treating Trauma & Abuse in the Family	3
or		
HDAL 5549	Substance Abuse: Counseling	3
or	Individuals and Families	
HDAL 5550	Counseling I	3
HDAL 5562	Counseling II	3
HDAL 5570	Supervised Counseling Practicum	3
HDAL 5810	Psychological Assessment	3
HDAL 5880	Internship	6
PSYC 5825	Psychopathology	3
or		
SOWK 5430	Psychopathology in Social Work Practice	3
or		
HDAL 5825	Developmental Psychopathology	30
Total Concentration Hours Required		
HDAL 5960	Thesis	3
or		

Guided Elective

Total Hours Required for M.A. degree 48

Elementary/Secondary School Counseling

Teah Moore, Ph.D., Assistant Professor and Elementary and Secondary School Counseling Coordinator

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 Box 70548
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 e-mail: mooret@etsu.edu

The school counseling concentration is designed to prepare individuals to work in school settings and to be eligible for licensure as a K-12 school counselor. The school counseling concentration has been approved by the state of Tennessee as a preparation program for K-12 school counselors. To satisfy state requirements, candidates without teaching experience seeking to be licensed as school counselors for grades K-12 must take EDFN 5410, Foundations of Education (EDFN 2300 can be substituted) and SPED 5500, History, Issues, and Trends in Educating Exceptional Learners (SPED 2300 can be substituted).

Specific Requirements

Core Requirements

HDAL 5100	Human Relations and Group Process	3
HDAL 5110	Social & Cultural Found. in Counseling	3
HDAL 5230	Advanced Developmental Psychology	3
HDAL 5430	Legal & Ethical Issues	3
EDFN 5950	Methods of Research	3
Total Core Hours Required		15

Concentration Requirements

HDAL 5010	Principles and Administration of	3
Counseling and Consultation Services		
HDAL 5150	Career Development	3
HDAL 5440	Treating Trauma and Abuse in the Family	3
or		
HDAL 5549	Substance Abuse: Counseling with	3
or	Individuals and Families	
HDAL 5550	Counseling I	3
HDAL 5561	Counseling Techniques with Children	3
HDAL 5562	Counseling II	3
HDAL 5570	Supervised Counseling Practicum	3
HDAL 5810	Psychological Assessment	3
HDAL 5880	Internship	6
Total Concentration Hours Required		30

HDAL 5960 Thesis	3
or	3
Guided Elective	
Total Hours Required for M.A. degree	48

Higher Education Counseling

Patricia Robertson, Ed.D., Professor and Chair, Human Development and Learning and Higher Education Coordinator
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The higher education counseling concentration is designed to prepare counselors and administrative professionals for service to students in two-year 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.

Specific Requirements

Core Requirements

HDAL 5100 Human Relations and Group Process	3
HDAL 5110 Social and Cultural Foundations in Counseling .	3
HDAL 5230 Advanced Developmental Psychology	3
HDAL 5430 Legal and Ethical Issues	3
EDFN 5950 Methods of Research	3
Total Core Hours Required	15

Concentration Requirements

HDAL 5150 Career Development	3
HDAL 5440 Treating Trauma and Abuse in the Family	
or	3
HDAL 5549 Substance Abuse: Counseling	
Individuals and Families	
HDAL 5550 Counseling I	3
HDAL 5562 Counseling II	3
HDAL 5570 Supervised Counseling Practicum	3
HDAL 5721 Trends and Issues in Higher Education	3
HDAL 5722 Student Development and the	
College Environment	3
HDAL 5810 Psychological Assessment	3
HDAL 5880 Internship	6
Total Concentration Hours Required	30
HDAL 5960 Thesis	
or	3
Guided Elective	
Total Hours Required for M.A. degree	48

Marriage and Family Therapy

Brent Morrow, Ph.D., Associate Professor, Marriage and Family Therapy Coordinator
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 e-mail: morrowb@etsu.edu

The marriage and family therapy concentration is designed to prepare students to provide counseling for individual, couple, and family problems and issues in such settings as human service agencies, mental health centers, psychiatric hospitals, religious agencies, and counseling agencies.

Specific Requirements

Core Requirements

HDAL 5100 Human Relations and Group Process	3
HDAL 5110 Social & Cultural Foundations in Counseling	3
HDAL 5230 Advanced Developmental Psychology	3
HDAL 5430 Legal & Ethical Issues	3
EDFN 5950 Methods of Research	3
Total Core Hours Required	15

Concentration Requirements

HDAL 5420 Family Therapy I	3
HDAL 5421 Family Therapy II	3
HDAL 5422 Counseling with Couples	3
HDAL 5423 Postmodern Approaches to Family Therapy	3
HDAL 5440 Treating Trauma and Abuse in the Family	3
HDAL 5549 Substance Abuse: Counseling	
Individuals and Families	3
HDAL 5570 Supervised Counseling Practicum	3
HDAL 5880 Internship	6
PSYC 5825 Psychopathology	
or	
SOWK 5430 Psychopathology in Social Work	3
or	
HDAL 5825 Developmental Psychopathology	
Total Concentration Hours Required	30
HDAL 5960 Thesis	3
or	
Guided Elective	
Total Hours Required for M.A. degree	48

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 can be chosen from the disciplines of counseling, special education, criminal justice, social work, sociology, psychology, early childhood education, health education, personnel management, and other approved disciplines. 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), can 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. Tennessee’s licensure coursework requirement is 12 credit-hours beyond the 48 credit-hours required for graduation in any of the four (4) counseling concentrations. Thus, students ultimately seeking LPC licensure should note that additional courses will be required beyond those necessary to graduate with a Master of Arts degree 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 that requires certain courses. Students should refer to the Counseling Program Handbook or contact their 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: First we obtain the sum of the Verbal and Quantitative GRE

general aptitude scores plus the Essay component score after it has been converted to a comparable scale. The conversion for the Essay component is to add one to the score and then multiply by 100. To this sum we add 400 times the applicant's undergraduate grade point average (UGGPA). This total should be at least 2500. Stated mathematically, the formula would be: (Verbal + Quantitative + (Essay + 1) x 100) + (UGGPA x 400) > 2500.

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 February 15th (recommended) and the regular admission deadline is April 1st.

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 (GPA);
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.

**Counselor Leadership
(Educational Leadership)**

**James Bitter, Ed.D., Professor and Ed.S. in Counselor Leadership
Coordinator**

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Together with the Educational Leadership program in ELPA, the Counseling Program offers an Educational Specialist (Ed.S.) concentration in Counseling Leadership. This 31 credit-hour program is designed to provide advanced, Post-Master's training in K-12 counseling and consultation as well as leadership skills that will prepare professionals for administrative positions within various school systems and community agencies. The program is delivered to cohorts throughout the region with primary cohorts already established in Johnson City, Kingsport, and Sevierville, Tennessee. Those interested in applying for this program should contact Dr. James Bitter at (423) 439-4190 and should review the application process for the Ed.S. listed in the ELPA programs in this catalog.

ELPA Core

ELPA	6220	Specialist Seminar	1
ELPA	6450	Leadership Studies	3
ELPA	6820	Law for Organizational Leaders	3
ELPA	6872	Technology Applications or	3

ELPA	6951	Research Analysis and Interpretation	
Total Required ELPA Core Hours			10
HDAL Core			
HDAL	5540	Treating Trauma and Abuse in the Family or	3
HDAL	5549	Substance Abuse: Counseling Individuals and Families	
HDAL	5563	Adv. Counseling Techniques with Children	3
		and Adolescents	
HDAL	6563	Advanced Social/Cultural Foundations	3
HDAL	6585	Trauma and Recovery	3
HDAL	6593	Advanced Internship	6
Total Required HDAL Credit Hours			18
Guided Elective			3
Total Required Hours for Ed.S. degree			31

Criminal Justice and Criminology

Master of Arts in Criminal Justice and Criminology

<http://www/etsu.edu/crimjust>

John T. Whitehead, Ph.D., Chair

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Steven J. Ellwanger, Ph.D., Graduate Coordinator

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Faculty:

Michael Braswell; Steve Ellwanger; 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 and quantitative scores on the GRE and the applicant's undergraduate grade point average. For example, an undergraduate grade point average of 3.00, a combined score of 850 on the verbal and quantitative portions, as well as a 3.00 on the writing section of the GRE are sufficient for admission to the graduate program.

Required Core

CJCR	5000	Criminological Theory	3
CJCR	5005	Ethics and Social Justice	3
CJCR	5010	The American System of Justice	3
CJCR	5040	Law, Society, and Criminal Justice	3
CJCR	5850	Research Design in Criminology	3
CJCR	5950	Quantitative Methods in Criminology	3

Thesis Option

CJCR	5960	Thesis	3
Electives			12

Non-Thesis Option

Electives			18
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Total Hours Required Degree **33-36**

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 27 credit-hours and ALL core courses 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 (1) semester later. Examinations are not administered during the summer. In the event of a second failure of any exam area(s), the student will be required to repeat coursework supporting those failed areas prior to a final examination attempt. Any third attempt at the comprehensive examination will be final; students failing the third attempt will be dismissed from the program.

**Digital Media Concentration
(Technology)**

Faculty: *See *Technology*

The Digital Media Concentration in Technology 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, technologies, and business practices in a rapidly changing environment for communication, instruction, creative production and research; will be able to analyze and evaluate functional and communication aspects of 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.

Admission Requirements

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, 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 (1) or more elements of digital media such as web production, interactive CD or DVD development, 3-D modeling/visualization, animation, graphic design, computer art, instructional design (distance learning and/or interactive instructional software), video/film, photography, or audio production.
2. Demonstrate competency in multiple software programs 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 grading scale.
4. Provide a written Statement of Purpose (1,000 - 1,500 words) describing reasons for wishing to enter the program, career goals in the field of digital media, and ideas and topics for research in the digital medias that the applicant intends to pursue.
5. International students must have a TOEFL score of at least 550 (paper score) or 213 (computer score), or 79 (internet), or an IELTS score of 6.5.
6. Include with the application any applicable professional and academic accomplishments (e.g., awards and honors).
7. Include with the application three (3) letters of recommendation.
8. 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 coursework that will not be counted toward the master's degree.

Concentration Requirements

Students in the Digital Media Concentration may select either the thesis option requiring 33 credit-hours including DIGM 5960-Thesis, or the non-thesis option requiring 36 credit-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
DIGM	5820	New Media Communication and Research	3
Choice of two (2) of the following graduate courses:			
ENTC/BADM	5170	Strategic Management of Technology and Innovation	3
ENTC	5030	Investigation in Technology	3
ENTC	5070	Leading Empowered Problem Solving Teams	3
ENTC	5640	Innovative Entrepreneurship	3
ENTC	5630	Project Management	3
ENTC	5800	Strategic Experience	3
ENTC	5060	Scheduling for Project & Quality Management ..	3
Total Core Hours			9

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 must be chosen in consultation with your graduate committee chair and/or the digital media program graduate coordinator, and should support your chosen study emphasis.

Select approved elective courses from the list indicated below:

DIGM	5147	Fundamentals of Character Animation	3
DIGM	5146	Character Animation Graduate Lab	1
DIGM	5617	Advanced Raster-Based Imaging	3
DIGM	5616	Raster-Based Imaging Graduate Lab	1
DIGM	5627	Motion Tools II: Compositing	3
DIGM	5626	Compositing Graduate Laboratory	1
DIGM	5637	Advanced Interaction Design	3
DIGM	5636	Interaction Graduate Laboratory	1
DIGM	5647	Advanced Animation	3
DIGM	5646	Animation Graduate Laboratory	1
DIGM	5657	Advanced Web Design	3
DIGM	5656	Web Design Graduate Laboratory	1
DIGM	5667	Advanced Product Design	3
DIGM	5666	Product Design Graduate Laboratory	1
DIGM	5817	3D Effects Animation	3
DIGM	5816	3D Effects Animation Graduate Lab	1
DIGM	5821	Digital Media as an Art Form	4
DIGM	5827	Motion Tools III: Application	3
DIGM	5826	Motion Tools III: Graduate Lab	1
DIGM	5877	Advanced Modeling and Lighting	3
DIGM	5876	Modeling & Lighting Graduate Lab	1
DIGM	5887	Technical Direction for Animation	3
DIGM	5886	Technical Direction Graduate Lab	1
DIGM	5900	Independent Study in Digital Media	1-3
DIGM	5910	Experimental Media I	3
DIGM	5915	Experimental Media II	3
DIGM	5957	Topics in Digital Media	2-4

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 and Co-Op experiences are encouraged, but credits cannot be applied toward program requirements

Total Guided Elective Hours **21-24**

Note Production-oriented courses may be combined graduate/undergraduate courses. These courses have numbers that end in a "7" (e.g., 5xx7). No more than ten (10) hours, Thesis Option, or eleven (11) hours, Non-Thesis Option, of 5xx7 courses may be applied toward program requirements. Also, no more than ten (10) hours, Thesis Option, or eleven (11) hours, Non-Thesis Option of Independent Study, may be applied toward program requirements.

Culminating Experience

All students in the Digital Media Concentration will be required to complete a "culminating experience" consisting of either DIGM 5960 Thesis (Thesis Option) 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 an advisory committee.

An oral presentation and defense of the completed culminating work must be scheduled. At this time the committee will conduct 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 advisory 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 Culminating Experience Hours 3
Total Hours Required for Degree 33-36

Early Childhood

**Master of Arts in Early Childhood Education
 Master Teacher**

**Master of Arts in Early Childhood Education
 Researcher/Thesis**

**Master of Arts in Early Childhood Education
 Initial Licensure PreK-3**

**Doctor of Philosophy in Early Childhood Education
 Initial Licensure PreK-3**

Amy Malkus, Ph.D., Graduate Coordinator, Master's Program

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Pam Evanshen, Ed.D., Graduate Coordinator, Ph.D. Program

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Department of Human Development and Learning

Patricia Robertson, Ed.D., Chair

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Pam Evanshen, Ed.D., Program Coordinator

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Faculty:

Jane Broderick; Pam Evanshen; Lissy Gloeckler; Kim Hale; Rebecca Isbell; Amy Malkus.

The Department of Human Development and Learning offers three Master of Arts degrees in early childhood education. These graduate programs provide specialized education preparation for those interested in young children's development from birth to eight years of age and their families. They focus on promoting the optimal developmental environment for young children, birth to eight years of age. The Master of Arts in Early Childhood Education - Initial Licensure leads to licensure in PreK-3 in Tennessee. The Master of Arts in Early Childhood Education - Master Teacher and Researcher/Thesis programs train 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.

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 and no grade lower than a B in the first 9 credits of graduate credit.

3. 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. degree in early childhood education. The courses are designed to provide a foundation of knowledge concerning the young child birth - eight years of age. The core includes the study of typically developing children (birth - eight), their unique learning abilities, history and philosophy of early childhood education, parental influence, designing environments, and research methods.

Concentrations and Electives

The concentration and electives 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 interests 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-3, and other areas that relate to young children.

**M.A. in Early Childhood Teaching
 (Initial licensure in PreK-3)**

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 15 credits of professional core and 24 credits of early childhood courses that focus on language development, technology and media, creative arts, assessment, curriculum development, and parent involvement. It also includes courses in special education, science, and mathematics. This combination of courses must be taken to meet state competencies in early childhood for PreK-3 licensure. In addition, students will be required to complete a 9-hour student teaching and seminar in PreK-K and 1-3. The PRAXIS II requirements from the State of Tennessee must be complete before student teaching. Students completing this comprehensive program and supervised student teaching will be highly trained early childhood teachers.

Graduate students seeking PreK-3 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 PRAXIS I, 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

ECED	5330	History & Philosophy of Early Childhood Education	3
ECED	5210	Advanced Child Development	3
ECED	5344	Family & Community Relations	3
ECED	5332	Designing Early Childhood Environments	3
EDFN	5950	Methods of Research	3
Total Professional Core Hours			15

Additional Requirements for Licensure

(For candidates NOT previously certified PreK-3)

ECED	5167	Constructivist Approach to Science/Math	3
ECED	5335	Assessing & Evaluating Young Children	3
ECED	5336	Advanced Creative Development	3
ECED	5356	Language & Literacy Development of Young Children	3
ECED	5347	Technology and Media in Early Childhood Education	3
ECED	5417	Curriculum Development for Young Children	3
ECED	5517	Family-School-Community	3
SPED	5500	History, Issues, & Trends in Educating Exceptional Learners	3
Total Additional Hours			24

Student Teaching

The student teaching experience will be designed to ensure that the graduate student has supervised experiences in both PreK-K and Grades 1-3.

ECED	5580	Student Teaching & Seminar in Early Childhood Education (PreK-3)	9
Total for Initial Licensure			48

Master of Arts in Early Childhood Education (Master Teacher ECMT)(Researcher/Thesis)

Professional Core Requirements

ECED	5330	History & Philosophy of Early Childhood Education	3
ECED	5210	Advanced Child Development	3
ECED	5344	Family & Community Relations	3
ECED	5332	Designing Early Childhood Environments	3
EDFN	5950	Methods of Research	3
Total Professional Core Hours			15

Concentration

ECED	5167	Constructivist Approach to Science/Math	3
ECED	5335	Assessing & Evaluating Young Children	3
ECED	5345	Research in Early Childhood	3
Total Concentration Hours			9

Guided Electives

(Choose nine (9) credit hours from the following with prior approval of the student's graduate advisor.)

ECED	5257	Mentoring in Early Childhood Education	3
ECED	5331	Infancy	3
ECED	5332	Designing Early Childhood Environments	3
ECED	5333	Processes of Learning in Infants & Young Children	3
ECED	5334	Social Development of Young Children	3
ECED	5336	Advanced Creative Development	3
ECED	5347	Technology & Media in Early Childhood Education	3
ECED	5352	Theories of Play	3
ECED	5356	Language & Literacy Development of Young Children	3
ECED	5357	Management & Administration of Early Childhood Programs	3
SPED	5500	History, Issues, & Trends in Educating Exceptional Learners	3
Total Elective Hours			9

Culminating Experience

The candidate must complete a supervised practicum in an early childhood setting.

ECED	5570	Practicum in Early Childhood Education	3
Total for M.A. degree (Master Teacher)			36

Master of Arts in Early Childhood Education (Researcher/Thesis ECMA)(Researcher/Thesis)

Professional Core Requirements

ECED	5330	History & Philosophy of Early Childhood Education	3
ECED	5210	Advanced Child Development	3
ECED	5344	Family & Community Relations	3
ECED	5332	Designing Early Childhood Environments	3
EDFN	5950	Methods of Research	3
Total Professional Core Hours			15

Concentration

ECED	5167	Constructivist Approach to Science/Math	3
ECED	5335	Assessing & Evaluating Young Children	3
ECED	5345	Research in Early Childhood	3
Total Concentration Hours			9

Guided Electives

(Choose six (6) credit hours from the following with prior approval of the student's graduate advisor.)

ECED	5257	Mentoring in Early Childhood Education	3
ECED	5331	Infancy	3

ECED	5332	Designing Early Childhood Environments	3
ECED	5333	Processes of Learning in Infants & Young Children	3
ECED	5334	Social Development of Young Children	3
ECED	5336	Advanced Creative Development	3
ECED	5347	Technology & Media in Early Childhood Education	3
ECED	5352	Theories of Play	3
ECED	5356	Language & Literacy Development of Young Children	3
ECED	5357	Management & Administration of Early Childhood Programs	3
SPED	5500	History, Issues, & Trends in Educating Exceptional Learners	3
Total Elective Hours			6

Culminating Experience

The candidate must complete a supervised practicum in an early childhood setting.

HDAL	5960	Thesis	3
Total for M.A. degree (Master Teacher)			33

Master of Arts in Early Childhood Education Cohort Program

Beginning in the fall semester, a cohort of students interested in securing a master's degree in Early Childhood Education is established. This cohort is specifically designed for individuals who are already certified in early childhood education, and who are interested in a master's degree that can be obtained during a 4-semester plus one summer time period.

The core and concentration course requirements are the same as those required for the M.A. in Early Childhood - Master Teacher Program.

The elective courses include the following:

ECED	5336	Advanced Creative Development in Young Children	3
ECED	5347	Technology & Media in Early Childhood Education	3
ECED	5356	Language & Literacy Development of Young Children	3

Those currently holding a Tennessee license may also enroll in the cohort to complete add-on PreK-3 requirements

Doctor of Philosophy in Early Childhood Education

Pamela Evanshen, Ed.D., Graduate Coordinator, Ph.D. Program
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Faculty:

Jane Broderick; Pam Evanshen; Lissy Gloeckler; Kim Hale; Rebecca Isbell; Amy Malkus.

Admission Requirements: Applications to the Ph.D. in Early Childhood program are evaluated once each year for admission in the fall semester. All application information must be received by March 15th for a student to be considered for admission. Students will be admitted on a competitive basis. Admission to the Ph.D. in Early Childhood Education program has the same requirements as existing graduate school requirements plus additional specific requirements (in italics):

1. Application fee.
2. Application form.
3. One official transcript of all previous undergraduate and graduate work.
4. Personal resume.
5. A personal essay *that includes a written statement of career and educational goals, professional experience, and area of interest for the dissertation.*
6. Submit official scores on the Graduate Record Examination (GRE) taken within the past 5 years, except for those with a prior doctoral degree from an accredited institution within the United States. The preferred scores are 50th percentile or higher for verbal and quantitative sections.

7. Four letters of recommendation.
8. Master's Degree in Early Childhood or a related field from an accredited university.
9. An interview by members of the admission committee, when warranted.

Graduation Requirements: Completion of the Ph.D. in Early Childhood includes all of the following:

1. A minimum of 69 semester credit hours of course work beyond the master's degree.
2. A minimum cumulative grade point average of 3.0 on a 4.0 scale.
3. Completion of a required research apprenticeship and at least one of the additional apprenticeship options (university teaching, development of teachers, early intervention, or early childhood leadership.)
4. Passing the doctoral comprehensive candidacy examination.
5. Completion of a dissertation of publishable quality.
6. Passing the final dissertation defense.

A student in the Early Childhood Ph.D. program shall have seven calendar years from the date of initial registration to complete and successfully defend a dissertation. All students must have Institutional Review Board approval by ETSU.

Major Field Core Requirements

ECED 6100	Historical and Theoretical Basis for Early Childhood Education	3
ECED 6200	Implications and Current Trends in Typical and Atypical Development of Young Children	3
ECED 6300	Social and Cultural Diversity in Children and Their Families	3
ECED 6400	Seminar in Professional Development and Leadership	3
Total Major Field Core Hours		12

Concentration Requirements (Specialization)

ECED 6600	Processes of Language and Literacy Learning	3
ECED 6610	The Teaching and Learning Environment: Impact on Children, Families, and Teachers	3
ECED 6620	Leadership Roles, Administration, and Supervision in Early Childhood Education	3
ECED 6630	Paradigms of Inquiry Based Constructivism	3
ECED 6640	Critical Analysis of Brain Research and Creative Theory	3
Total Specialization Hours		15

Electives

The three collateral courses must be taken in the same academic area, as determined by the student and doctoral advisor.

Total Elective Hours 9

Apprenticeship

Choose one (1) or two (2):

ECED 7001	University Teaching	3
ECED 7002	Development of Teachers	3
ECED 7003	Early Intervention	3
ECED 7004	Early Childhood Leadership	3
Total Apprenticeship Hours		3-6

Research

ELPA 7810	Educational Statistics	3
ELPA 7811	Quantitative Research	3
ELPA 7812	Qualitative Research	3
ECED 7814	Analysis and Interpretation of Research Designs	3
ECED 7000	Apprenticeship in Research <i>Faculty member oversees apprenticeship</i>	3
ECED 7950	Advanced Research in Early Childhood and Seminar	3
ECED 7960	Dissertation	12

ECED 7990	Readings and Research	1-3 (variable credit, if needed)
Total Research Hours		30
Total for Ph.D. degree		69-72

**Economic Development
Graduate Certificate**

Dr. J. David Briley, Interim Director

Associate Professor of Political Science
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Faculty: see *Geosciences*

This 15-hour graduate certificate program provides training in the theory and practice of economic development.

Admission: Undergraduate degree, and either 3.0 GPA or 900 score on verbal plus quantitative portions of the GRE.

Major Field Core	6	
ECON 5447	Urban and Regional Economics	3
URBS 5347	Economic Development Planning	3
Guided Electives	9	
ECON 5000	Essentials of Economics	3
FNCE 5000	Essentials of Finance	3
GEOG 5217	Geographic Information Systems	3
GEOG 5317	Adv. Geographic Information Systems	3
PMGT 5240	Seminar in Public Management	3
PMGT 5955	Topics in Public Management	3
URBS 5087	Recreation and Tourism Planning	3
URBS 5647	Local and Regional Planning	3

Or another relevant elective of three credits or more with approval of MPA Director.

Total Credit Hours Required for Certificate 15

Educational Leadership and Policy Analysis

James Bitter, Ed.D., Graduate Coordinator

Counselor Leadership

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Pam Scott, Graduate Coordinator, School System Leadership

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Faculty:

Virginia Foley; Catherine H. Glascock; Hal Knight; Eric Glover; James Lampley; Louise MacKay; Jasmine Renner; Pam Scott; Terry Tollefson.

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 (Pre-K-12) 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
(Educational Leadership)**

Program Admission Requirements

1. Individuals 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. The applicant must have completed a minimum of three years of successful teaching experience P12 prior to admission.
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 3.0 on a 4.0 scale. GPAs in professional education, psychology, and major field of study, calculated individually, must also be above 2.75. All exceptions to the 2.75 GPA for admissions must be approved on appeal.
4. Applicants may apply at any time during the year, although admission decisions will be made in the semester prior to the start of a new cohort group. This requires an October 1 application deadline for programs beginning in January, February 1 application deadline for programs beginning in May, and a May 1 application deadline for programs beginning in August.

Applicants 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, applicants must also submit:

- (a) a letter of support from the applicant's superintendent or other comparable supervisor;
- (b) three (3) additional letters of recommendation;
- (c) a current résumé and license;
- (d) a copy of their teaching license.

Applicants will also be asked to participate in a personal interview.

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 and continue through the program with the same group, taking one 6-hour credit 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 Coursework—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.

ELPA	5100	Interpersonal Relations	6
ELPA	5200	Emerging Perspectives Influencing the School .	6
ELPA	5300	Professional Needs of Individuals & Groups	6
ELPA	5400	Developing Learners through Instructional Leadership	6
ELPA	5500	Implementation Strategies: Making It Happen	6
ELPA	5600	Shaping the Quality and Character of the Institution	6
EDFN	5010	Interdisciplinary Seminar	1
Total Required Coursework			37 Credit Hours

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.

Beginning Administrator License —The applicant for beginning administrator must have completed the approved master's degree program in educational leadership. The applicant must successfully pass the examination required by the Tennessee Department of Education.

**Specialist in Education
(Educational Leadership)**

Program Admission Requirements

The Department of Education Leadership and Policy Analysis offers four (4) concentrations leading to the Specialist in Education Degree (Ed.S.): administrative endorsement, counselor leadership, school system leadership, and teacher leadership. The administrative endorsement concentration leads to beginning administrator license. The school system leadership concentration is designed primarily for practitioners who already possess administrative license and desire to work in central office positions in 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. The counselor leadership concentration is designed to prepare students to become school counselors. Applications for admission to the School of Graduate Studies and to the Ed.S. program may be obtained by contacting the office of the School of Graduate Studies. All students must submit a résumé 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 credit-hours above the master's degree to become eligible for the awarding of the specialist degree. Nine (9) 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 the 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 85 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. Employment Record	10 points
7. Four Letters of Recommendation	20 points

Concentration Requirements

A comprehensive examination is required of all students completing the Ed.S. program. Upon completion of the screening process, the departmental committee will make a recommendation to the School of Graduate Studies.

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. The 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.

Time Limits—Credit received beyond the master's degree and more than five (5) years prior to the awarding of the Ed.S. degree will not be accepted as part of the Ed.S. degree requirements.

Residency—One (1) semester or one (1) 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 (6) 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-hours beyond the master's degree. Students must take coursework and prove competence in one of the four (4) concentrations. The credits indicated in each area of study, evaluation of the student's competence and work may be prescribed beyond these requirements.

Educational Specialist (Ed.S.) Program with Administrative Endorsement, Counselor Leadership, School System Leadership, and Teacher Leadership Concentrations

Core Requirements for All Concentrations

ELPA 6450	Leadership Studies	3
ELPA 6951	Seminar in Research Analysis and Interpretations	3
	or	
ELPA 6872	Technology Applications for Educational Leaders	3
ELPA 6220	Specialist Seminar	1
Total	Core Hours	7

Administrative Endorsement Concentration Requirements

ELPA 6100	Interpersonal Relations	6
ELPA 6200	Emerging Perspectives Influencing the School .	6
ELPA 6300	Professional Needs of Individuals and Groups .	6
ELPA 6400	Developing Learners through Leadership	6
Total Admin. Endorsement Hours ...	24 Credit Hours	
Total Hours Required	31 Credit Hours	

In order to meet licensure requirements, students in this concentration are also required to take ELPA 6500 and 6600.

Counselor Leadership Concentration Requirements

**See Counselor Leadership Concentration Requirements*

School System Leadership Concentration Requirements

(Must include twelve (12) credits within each of two (2) areas of specialization for a total of 24 credit-hours.)

Leadership Core	7 Credit Hours
Supervision of Instruction Specialization	6 Credit Hours
Guided Electives	6 Credit Hours
Strategic Planning/Budgeting	6 Credit Hours
Specialization Required Guided Electives	6 Credit Hours
Total Hours Required	31

Beginning Administrator Endorsement— The applicant for endorsement as beginning administrator must hold a teacher's professional certificate. The applicant should have completed the approved program in educational leadership. The applicant must have completed a minimum of three years of successful teaching experience P12 prior to admission. The applicant must successfully pass the examination required by the Tennessee Department of Education. All students must successfully complete an appropriate, supervised internship to be eligible for the Professional Administrative Endorsement.

The Internships lead to a "Type B" Beginning Administrator Endorsement upon completion of all certification requirements.

Teacher Leadership Concentration Requirements

Must include seven (7) credits from the teacher leadership core, twelve (12) credits from the teacher leadership area, nine (9) credits from the teaching and learning specialization and three (3)-credits from the content area specialization.

Leadership Core	7 Credit Hours	
Teacher Leadership Area	12 Credit Hours	
ELPA 6452	Creating Effective Organizational Cultures	3
ELPA 6453	Ethics for Educational Leaders	3
ELPA 6555	Reflective Practice I	3
ELPA 6556	Reflective Practice II	3
ELPA 6558	Innovative Practices in Classroom Leadership .	3
Teaching and Learning Specialization	9 Credit Hours	
CUAI 5910	Assessment Techniques in the Classroom	3
CUAI 5215	Documenting the Scholarship of Teaching I	3
CUAI 5216	Documenting the Scholarship of Teaching II	3
Content Area Specialization	3 Credit Hours	

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 Hours Required

Doctor of Education (Educational Leadership)

Program Admission Requirements

The Department of Educational Leadership and Policy Analysis offers four (4) concentrations leading to the Doctorate in Education (Ed.D.) degree: 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 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 current résumé 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 School of Graduate Studies 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 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 15 points
(GRE) scores—Verbal and Quantitative
(The scores must be obtained within 5 years of date of application.)
- 7. Employment Record 10 points
- 8. Four Letters of Recommendation 20 points

Uniform evaluation sheets are utilized by an appointed screening committee upon completion of the screening process the departmental committee will make a recommendation to the School of Graduate Studies.

Program 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 (4) 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 the deans of the College of Education and the School of Graduate Studies, the student may make application for candidacy for the doctorate through the College of Education and the School of Graduate Studies.

The Final Examination—The examination will be oral and will be principally devoted to an evaluation and defense of the student’s doctoral dissertation. A member of the graduate faculty, from outside the candidate’s committee and department, is assigned by the School of Graduate Studies to monitor the process. The procedure to be followed in scheduling an oral defense and format for the graduate faculty representative’s narrative report are available from the School of Graduate Studies.

Regulations and Procedures Related to Student Assessment

A student must complete nine (9) to twelve (12) hours 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 advisor, but it should come after the student has completed all of the coursework. After the qualifying exam, each student must be registered for a minimum of three (3) hours each semester (spring, summer, and fall semesters). 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 that they present the prospectus.

The dissertation must be presented to committee members in final form at least two weeks prior to the final defense. The final oral examination will be a defense of the finished research report after the dissertation has been accepted for presentation 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 (4) factors:

- 1. training and coursework completed prior to 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 advisor prior to the beginning of the residency period, must be filed with the deans of the College of Education and the School of Graduate Studies, the department, and the chair of the student’s graduate advisory committee. Subsequently, students should consult with their advisor on residency. Four (4) options for fulfilling the residency requirements have been approved.

- 1. A residency of two (2) consecutive semesters, during which the student must not be employed more than half time.
- 2. A residency of two (2) consecutive semesters, which shall include one semester of not more than half-time employment and one (1) with no employment restrictions.
- 3. A residency of four (4) 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 semesters) 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 ten (10) approved residency activities and submit portfolio documentation of the completion to the advisory committee chair. Fulfillment of the residency requirements will be reported to the deans of the College of Education and School of Graduate Studies.

Any modification of the residency plan must be approved, in writing, by the student’s graduate 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 (3) semester hours of ELPA 7960 each semester, including summer, until completing the required twelve (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 a minimum of three (3) semester hours of ELPA 7990 each semester, including summer, until they have successfully defended their dissertations. Students who will defend their dissertations in the initial month of the semester may register for one (1) semester credit-hour of this course; those completing in the second month may register for two (2) semester credit-hours.

After the dissertation research has been conducted and the results have been analyzed, written, and accepted by the advisory committee, the dissertation must be processed in the proper electronic format and submitted to the Dean of the School of Graduate Studies for approval within the established timeline. General guidelines on the 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) 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 an Ed.D. degree, a student must be recommended by the graduate committee, whose chair will report that the student has fulfilled all of the requirements.

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 credit program which includes the following courses and activities:

ELPA 7810	Educational Statistics	3
ELPA 7811	Quantitative Research	3
ELPA 7812	Qualitative Research	3
ELPA 7813	Research in Educational Leadership	3
ELPA 6450	Leadership Studies	3
ELPA 6810	Theories of Educational Administration	3
ELPA 6581	Internship in Educational Leadership	3
ELPA 7960	Dissertation	12

Six (6) semester credits in research, statistics, evaluation, or technology

Six (6) semester credits in a cognate area other than Educational Leadership

Six (6) semester credits of Foundations of Education, to include EDFN 6730

Fifteen (15) 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
ELPA 7811	Quantitative Research, or	
ELPA 7812	Qualitative Research	3
ELPA 7813	Research in Educational Leadership	3
ELPA 6450	Leadership Studies	3
ELPA 6810	Theories of Educational Administration	3
ELPA 7960	Dissertation	12

Thirty-six (36) 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
ELPA 7811	Quantitative Research, or	
ELPA 7812	Qualitative Research	3
ELPA 7813	Research in Educational Leadership	3
ELPA 6450	Leadership Studies	3
ELPA 6810	Theories of Educational Administration	3
ELPA 6581	Internship in Educational Leadership	3
ELPA 7960	Dissertation	12

Twelve (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
ELPA 7811	Quantitative Research	
	or	
ELPA 7812	Qualitative Research	3

ELPA 7813	Research in Educational Leadership	3
ELPA 6450	Leadership Studies	3
ELPA 6810	Theories of Educational Administration	3
ELPA 6581	Internship in Educational Leadership	3
ELPA 6100	Interpersonal Relations	3
ELPA 6200	Professional Needs of Individuals and Groups .	3
ELPA 7960	Dissertation	12

(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 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 6872	Technology Applications for Educational Leaders
ELPA 6953	Policy Analysis
ELPA 6954	Educational Program Evaluation
ELPA 6955	Grant and Proposal Development
ELPA 6953	Policy Analysis
EDFN 6730	Historical & Philosophical Foundations of Education

Classroom Leadership Concentration

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 6953	Policy Analysis

Postsecondary And Private Sector Leadership Concentration

ELPA 6450	Leadership Studies
ELPA 6452	Creating Effective Organizational Cultures
ELPA 6561	Organizational Development
ELPA 6563	Adult Learner
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 7822	Higher Education Law
ELPA 7823	Higher Education Finance

**Educational Foundations
(EDFN)**

The mission and purpose of the foundations program unit in the College of Education is to plan, coordinate, and deliver educational experiences consistent with the college’s core requirements regarding knowledge, skills, and values deemed to be essential requisites for all of the college’s graduates.

We believe that all of the college's graduates should:

- demonstrate research competence (possess inquiry skills);
- demonstrate technological literacy;
- demonstrate effective communication skills;
- demonstrate grounding in historical, social, psychological, philosophical, political, and legal foundations related to their area of preparation;
- demonstrate an understanding of the challenges and opportunities surrounding issues of diversity and multiculturalism;
- demonstrate skills appropriate to leadership within the profession/field for which the graduate has been prepared; and
- demonstrate a knowledge of personal competencies and areas for continuing development.

The educational foundations unit will plan, coordinate, and deliver courses and other educational experiences which help develop these skills, attitudes, and competencies in all students, graduate and undergraduate, across the college. The unit will also maintain a course listing and matrix of courses offered throughout the college which identifies courses, segments of courses, and other learning experiences which contribute to the acquisition of these competencies.

Educational Media and Educational Technology

**Master of Education (M.Ed.)
in Educational Media and Educational Technology**

Educational Technology

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School Library Media

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H. Lee Daniels; Dilawar Grewal; Rhona Hurwitz; Leslie Perry; Elizabeth Ralston; Linda Steele.

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 School Library Media Concentration (SLIB) prepares candidates to become certified as school library media specialists to serve in K-12 schools. The SLIB curriculum is aligned with the standards of the American Library Association, American Association of School Librarians, and the State of Tennessee licensure standards. 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. 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 School of Graduate Studies 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 500, and
- (3) The sum of (1) and (2)

An oral or written interview may be requested by the program chair, in specific cases.

Matriculation

The coordinator of the program to which the prospective candidate has been admitted serves as the initial advisor. Students who anticipate candidacy for a degree are strongly encouraged to take courses based on guidelines provided by their advisors. Merely taking a collection of courses is not the same as matriculating within a program leading to a graduate degree.

Educational Media and Educational Technology

Core Requirements

EDFN	5010	Interdisciplinary Seminar	1
MEDA	5000	History and Philosophy of Educational Media and Educational Technology	3
MEDA	5400	Integrating Technology in Teaching	3
		and Learning	
MEDA	5700	The Instructional Role of Educational Media and Educational Technology	3
MEDA	5950	Research in Educational Media and	3
		Educational Technology	

Total Core Requirements 13 Credit Hours

Educational Communications and Technology Concentration

MEDA	5540	Principles of Instructional Design	3
		and Production	
*	MED/CSCI 5520	Essentials of Multi-Media	3
*	MEDA 5530	Computer-Based Authoring Systems	3
MEDA	5680	Organization and Administration of	3
		Instructional Technology Programs	
MEDA	5800	Information Networks -	3
		Resource Sharing	
MEDA	5850	Organizing and Managing Content	3
		on the Internet	
MEDA	5930	Practicum with Seminar in Educational Communications and Technology	2
		Guided Elective	3

Total Hours Required for Degree 36

School Library Media Concentration

MEDA	5628	Children's Materials	3
MEDA	5635	Basic Reference Materials	3
MEDA	5637	Young Adult Materials	3
MEDA	5710	School Library Media Program	3
		Development and Management	
MEDA	5720	Organization of Library Media	3
MEDA	5925	Practicum/Internship/Enhanced	5
		Student Teaching	
		Guided Elective	3

Total Hours Required for Degree 36

Elementary Education

Master of Education in Elementary Education

Leslie Perry, Ph.D., Graduate Coordinator

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Faculty:

Tammy Barnes; Martha Collins; H. Lee Daniels; Edward J. Dwyer; Rosalind Gann; Aimee Govett; Rhona Hurwitz; Lori Meier; Ryan Nivens; Leslie Perry; Elizabeth Ralston.

Admission Requirements—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.

Individuals 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 (2) 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 number (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 working toward the Master of Education degree in Elementary Education are required to meet with the chair of their advisory committee 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 examination is required of all students completing graduate programs in elementary education. Presentation of a Professional Portfolio is a required part of the oral examination. Degree candidates meet with their advisor at the beginning of the final semester to plan for these examinations. Specific program requirements are indicated below.

Master of Education Degree Requirements

I. Core Courses	
EDFN 5010	Interdisciplinary Seminar 1
EDFN 5950	Methods of Research 3
CUAI 5199	Teaching in a Diverse Society 3
MEDA 5400	Integrating Technology in Teaching and Learning 3
Total Core Hours 10	
II. Professional Development Courses	
CUAI 5440	Elementary Curriculum and Assessment 3
READ 5120	Teaching Reading 3
READ 5750	Literacy Instruction in Linguistically Diverse Classrooms 3
READ 5027	Diagnostic and Remedial Procedures In Reading 3
CUAI 5116	Elementary School Mathematics 3
CUAI 5119	Elementary School Science 3
CUAI 5121	Elementary School Social Studies 3
Total Professional Development Hours 21	
III. Content Courses	
Content courses are selected from areas of study related to elementary teaching and must be approved by the advisor.	
Total Content Hours 6	
Total Hours Required for Degree 37	

See Curriculum and Instruction (CUAI), Educational Foundations (EDFN), Media (MEDA), and Reading (READ) sections for course descriptions.

Elementary/Secondary School Counseling Concentration

**See Counseling*

Emerging Technology Graduate Certificate

Martin Barrett, Ph.D., Graduate Coordinator

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 Box 70711
 (423) 439-7409
 e-mail: barrettm@etsu.edu

Faculty:

Gordon Bailes; Gene Bailey; Martin Barrett; Terry Countermine; Donald Gotterbarn; Michael Laws; Phillip Pfeiffer IV; Vernon Pine; Kellie Price; Jeffrey Roach; Donald Sanderson; Suzanne Smith; David Tarnoff; Christopher Wallace.

The field of computer science changes constantly. Practicing professionals, even those who graduated only a few years ago, may find themselves falling behind in their technical knowledge. They need to update their skills and knowledge in order to maintain their employability. This certificate program is designed for individuals who need to update their technical skills in current technologies within computer science and information technology. Students will demonstrate those skills on real-world problems encountered by computing professionals. Students will be able to choose courses appropriate to their academic and professional experience.

Admission Requirements

A bachelor's degree in computer science or three (3) years as a practicing information technology professional (as evaluated by the graduate coordinator) is required for admission.

Curriculum

All students in the Emerging Technology Certificate Program are required to complete 12 credit-hours (4 courses) from the list of courses below. The student and the program coordinator will, upon admission of the student, meet to formulate a coursework plan, and only courses approved by the program coordinator may be used for credit toward the certificate. A minimum grade of "C" is required in each course, and an overall grade point average (GPA) of 3.0 in the program is required for graduation.

Approved Courses

CSCI 5011	Internet Technology I 3
CSCI 5012	Internet Technology II 3
CSCI 5017	Information Assurance 3
CSCI 5027	Information Management 3
CSCI 5057	Advanced Internet Technology 3
CSCI 5067	Network Essentials 3
*CSCI 5097	Emerging Technology 3
CSCI 5127	Database Management Systems I 3
CSCI 5150	Topics in Distributed Systems 3
CSCI 5157	Interactive Graphics 3
CSCI 5200	Software Systems Engineering 3
CSCI 5217	Ethical Issues in Computing 3
CSCI 5220	Software Verification and Validation 3
CSCI 5227	Database Management Systems II 3
CSCI 5230	Software Project Management 3
CSCI 5300	Principles & Applications of Software Design .. 3
CSCI 5360	Network and System Administration 3
CSCI 5417	Data Communication & Network Security 3
CSCI 5460	Network and Information Security 3
CSCI 5710	E-Commerce Implementation 3
CSCI 5720	Enterprise and E-Business Integration 3
*CSCI 5957	Special Topics in Computer Science 3

*Courses may be repeated for credit with coordinator's approval.

Engineering Technology Concentration (Technology)

Faculty: **See Technology*

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

Concentration Requirements

Students in the Engineering Technology Concentration may select either the thesis option, which requires 30 semester hours, including ENTC 5960-Thesis, 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 engineering technology concentration students must complete the coursework indicated below:

Core Requirements

ENTC	5030 Investigation in Technology	3
ENTC	5950 Methods of Research	3
MGMT	5010 Essentials of Management	
	or	
BADM	5320 Operations Strategy	
	or	
ENTC/BADM	5170 Strategic Management of Technology	3
	Total Core Hours	9

The remainder of the required graduate hours will be chosen with the guidance and approval of the student's graduate committee to provide advanced education experiences related to the student's career goals.

Total Hours Required for Degree 30-36 Credit Hours

English

Master of Arts in English

Robert Sawyer, Ph.D., Graduate Coordinator

311 Burleson Hall
 Box 70683
 (423) 439-6670
 e-mail: sawyerr@etsu.edu

Judith Slagle, Ph.D., Chair

103B Burleson Hall
 Box 70683
 (423) 439-4339
 e-mail: slagle@etsu.edu

Faculty:

Jennifer Barker; Jeff Beck; Karen Cajka; Michael Cody; Thomas Crofts; Susan Dyer; Yousif Elhindi; Ronald Giles; Darryl Haley; Roberta Herrin; Mark Holland; Thomas Alan Holmes; Mary Hurd; Donald Johnson; Karen Kornweibel; Shawna Lichtenwalner; Theresa Lloyd; Theresa McGarry; Martha Michieka; John Morefield; Kevin O'Donnell; Jeffery Powers-Beck; Robert Sawyer; Judith Slagle; Isabel Stanley; Phyllis Thompson; Frederick Waage; Katherine Weiss.

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, continental literature, 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 (GRE) aptitude test.
 3. Three (3) letters of recommendation.

Applicants for graduate assistantships should submit a writing sample of at least ten (10) pages. For information on the graduate certificate in Teaching English to Speakers of Other Languages, see the alphabetic listing later in the catalog.

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 (30) 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); ENGL 5039, Supervised Experience in Administration (required for all administrative assistants). All students earning the Master of Arts 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	5057 Writing-Theory and Teaching	3 credits
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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 credit-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 a comprehensive written exam covering material from their coursework, as well as texts from a reading list that will be made available to all students upon entry into the program. Students will be required to pass all sections to pass the exam. If a student fails only one question on the exam, however, the student can retake that section within 7-10 days in an oral exam format. This supplementary one-hour oral re-examination will be given by the professor who wrote the exam question and by another professor under the direction of the graduate coordinator. Students who do not pass the oral re-examination can take the entire exam one more time, but only when it is offered the following semester. Failure to pass the second examination will result in removal from the program.

Entrepreneurial Leadership Graduate Certificate

Andrew Czuchry, Ph.D., Graduate Coordinator

338 Sam Wilson Hall
 Box 70619
 (423) 439-7444
 e-mail: czuchry@etsu.edu

Graduate Faculty:

Andy Czuchry; Andy Clark; Craig Turner.

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 led 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 Courses

MGMT	5617	Small Business Mgmt	3
ENTC/BADM	5370	Entrepreneurial Finance	3
ENTC/MGMT	5640	Innovative Entrepreneurship.	3
BADM/ENTC	5170	Strategic Management	3
		of Technology and Innovation	
BADM	5905	Graduate Internship (ENTC equivalent)	
		or	3
BADM/ENTC	5800	Strategic Experience	
Select One of the Following Electives:			
ENTC/MGMT	5050	Leading Continuous Improvement	
		or	3
ENTC/MGMT	5070	Leading Empowered Problem Solving Teams	
		or	3
ENTC/MGMT	5060	Scheduling for Project and	
		Quality Management	
		or	3
ENTC/MGMT	5630	Project Management	3
Total Credit Hours Required 18 Credit Hours			

**Environmental Health
(ENVH)**

**Master of Science in Environmental Health
Master of Public Health,
Concentration in Environmental Health
Ph.D. in Environmental Health Sciences
Concentration in Environmental Health**

Kurt Maier, Ph.D., Graduate Coordinator

55 Lamb Hall
Box 70682
(423) 439-5251
e-mail: maier@etsu.edu

Phillip Scheuerman, Ph.D., Chair

55 Lamb Hall
Box 70682
(423) 439-7078
e-mail: philsche@etsu.edu

Faculty:

Troy Burrow; Kurt J. Maier; Tricia A. Metts; Phillip R. Scheuerman; Kenneth Silver.

**Master of Science in Environmental Health
Purpose**

The goal of this degree program 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 program 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 one (1) semester of general microbiology, one (1) year of general biology, and one (1) year of general chemistry; college algebra and trigonometry or higher math are also required.
5. Three (3) letters of recommendation.

Admission is based on the GPA, GRE scores, quality of recommendation 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 recommendation can be used to justify conditional admission for students not meeting one of the minimum requirements (e.g., GRE scores below what the department considers suitable). 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 four (4) semester credit-hours of ENVH 5960 (Thesis). Thesis option students must complete and defend a thesis as approved by the student's Graduate 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 examination demonstrating core course competency (epidemiology, biostatistics, toxicology, environment health practice, and designated concentration). The examination must be taken in the final semester of the student's program, and it will be administered on a designated date each semester. Students failing 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.

Core Course Requirements 17 Credit Hours

ENVH	5357	Toxicology	3
PUBH	5310	Biostatistics	3
PUBH	5400	Epidemiology	3
ENVH	5640	Environmental Risk Assessment	4
ENVH	5860	Environmental Health Administration	3
ENVH	5910	Seminar	1

Concentration Requirements

Students must complete one (1) of two (2) 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 5870	Public Health Law	3
ENVH 5890	Environmental Planning	3

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 one (1) of the following courses in addition to the core courses.

ENVH 5200	Environmental Chemistry	4
ENVH 5250	Environmental Microbiology	4
ENVH 5890	Environmental Planning	3

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.

**Master of Public Health
Concentration in Environmental Health**

The department offers the M.P.H. concentration in Environmental Health. The M.P.H. degree program is administered through the College of Public Health.

Ph.D. in Environmental Health Sciences

Purpose

The purpose of the Environmental Health Sciences Ph.D. Program is to promote the environmental health sciences, and identify, prevent, and manage disease and injury. This purpose will be fulfilled through dedication to higher (doctoral level) education and training, distinction in research, innovation in policy development, and improvement of health strategies. The doctoral program will prepare professionals in the environmental health sciences to:

- reduce the burden of environmentally associated diseases by defining: 1) how environmental exposures affect human health; 2) how individuals differ in their susceptibility to these exposures; and 3) how these susceptibilities change over the life span.
- develop and implement effective strategies and programs for the maintenance of health and the prevention and management of disease and injury.
- serve as faculty and instructors for academic programs in environmental health.
- develop effective environmental health policies.
- design and conduct quality research that contributes to improvements in environmental health.
- collaborate and work with communities for the promotion of health and the prevention and control of disease.
- meet the increasing need for trained professionals in environmental health, including those who can analyze and address environmental health issues.
- investigate environmental conditions that may affect a community's health status, and provide technical assistance and leadership to address the concerns of communities.
- provide skills and knowledge in the public health core area of environmental health.

Program Admission Requirements

The Environmental Health Sciences Ph.D. Program Committee will review applications for admission to the program. Admission decisions are made

on the basis of an overall evaluation of the applicant's ability to complete advanced study in the Environmental Health Sciences. The applicant must have earned an appropriate M.S. or more advanced research-based (thesis) degree in appropriate field of study or a MPH or more advanced degree in a research-based (thesis) option from an accredited institution. Exceptions are made for outstanding students holding appropriate baccalaureate degrees. 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 program 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 or GPA below what the program considers acceptable). However, work experience cannot be substituted for one of the requirements. All students must submit an official transcript, a statement of purpose, GRE scores, three letters of reference, and current curriculum vitae (CV) or resume before their application will be considered.

Minimum Course Requirements - Ph.D.

Core	.....	15
ENVH 5100/6100	Environmental Health Practice I	3
PUBH 5310	Biostatistics	3
PUBH 5400	Epidemiology	3
ENVH 6910	Experimental Design	3
ENVH 6920	Doctoral Seminar (take three times - 1 credit each)	3
Electives	.....	41

Directed elective courses will be determined by the Graduate Advisory Committee that is responsible for overseeing the student's overall academic program, including the program of study. Courses applicable to this program exist at East Tennessee State University in the Colleges of Public and Allied Health, Medicine, Nursing, Arts and Sciences, and Business and Technology.

ENVH 6960	Dissertation Research	16
Total Hours Required		72

Epidemiology M.P.H. and Dr.P.H. Degree

**See Biostatistics and Epidemiology*

**Epidemiology Graduate Certificate
(Biostatistics and Epidemiology)**

James L. Anderson, M.D., M.P.H., Ph.D., Interim Chair,
Department of Biostatistics and Epidemiology
 College of Public Health
 149 Lamb Hall
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 (423) 439-4477
 e-mail: andersjl@etsu.edu

The Epidemiology Graduate Certificate Program is a 15-credit-hour program designed to provide the learner with a basic understanding of the concepts of epidemiology used in public health practice. Epidemiology is the study of the distribution and determinants of disease, illness, and injury.

Admission to the Program

The criteria for admission to the Epidemiology 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:
1. an application;
 2. three (3) letters of recommendation; and
 3. official transcripts from all colleges attended.

All applications will be evaluated by an admission committee. Letters of recommendation are waived for applicants of the Tennessee Public Health Workforce Development Consortium.

Core Requirements

PUBH 5030	Overview of Public Health	3
PUBH 5310	Biostatistics I	3
PUBH 5400	Epidemiology I	3
Total Core Hours		9

Concentration Requirements

PUBH 5405	Epidemiology II	3
PUBH 5410	Statistical Software for Health Professionals ...	3
Total Concentration Hours		6
Total Required Coursework Hours		15

A student may use a course from the following list to replace a required course previously taken at another institution or completed in fulfillment of another degree at ETSU.

PUBH 5110	Community Health Assessment Research	3
PUBH 5120	Health Program Planning and Evaluation	3
PUBH 5130	Consulting and Implementation of Health Programs and Services	3
MATH 5287	Applications of Statistics	3
PUBH 5330	Statistical Methods in Epidemiology	3
PUBH 5460	Environmental/Occupational Epidemiology	3
PUBH 5600	Industrial Health Education	3
PUBH 5620	Hazards in the Workplace	3
PUBH 5900	Grant and Proposal Development	3

Exercise Physiology and Performance Concentration (Physical Education)

**See Kinesiology, Leisure and Sport Sciences*

Geoscience Concentration (Technology)

W. Andrew Clark, Graduate Coordinator

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Box 70552
(423) 439-5995
e-mail: clarkw@etsu.edu

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
ENTC 5950	Methods of Research	3
MGMT 5010	Essentials of Management	
	or	
MGMT 5110	Operations Management	
	or	
ENTC/BADM 5170	Strategic Management of Technology	3
Total Technology Core Hours		9

Geoscience Core

GEOG 5000	Quantitative Techniques	3
GEOG 5010	Location Theory	3
GEOG 5310	Evolution of Geoscience Thought	3
Total Geoscience Core Hours		9

The geoscience graduate student will write a thesis (ENTC 5960-Thesis) 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.

Students should select a minimum of nine (9) credit-hours from the following:

GEOL 5587	Engineering Geology	4
GEOL 5617	Structural Geology	4
GEOG 5007	Geography of the United States	3
GEOG 5077	Seminar in Geography of Southern Appalachia	3
GEOG 5110	Seminar in Physical Geography	3
GEOG 5117	Resource Management	3
GEOG 5140	Seminar in Regional Geography	3

GEOG 5210	Geography in Settlement and Land Use	3
GEOG 5217	Geographic Information Systems	3
GEOG 5227	Remote Sensing	3
GEOG 5237	Advanced Remote Sensing	3
GEOG 5257	Geography of Soils	3
GEOG 5267	Hydrology	4
GEOG 5317	Advanced Geographic Information Systems	3
GEOG 5320	Geography Information Systems Projects	3
GEOG 5417	The Teaching of Geography and Earth Science	3
GEOG 5807	Advanced Field Methods	3
GEOG 5957	Topics in Geoscience	3
SURV 5110	Physical Geodesy	3
SURV 5517	Photogrammetry	4
SURV 5537	Land Boundary Location	4
SURV 5547	Land Subdivision and Platting	4
SURV 5567	Positioning with GPS	3
SURV 5617	Digital Imagery Processing	3
BIOL 5247	Appalachian Flora	3
BIOL 5257	Appalachian Fauna	3
BIOL 5347	Biogeography	3
BIOL 5467	Ichthyology	3
BIOL 5477	Ornithology	3
BIOL 5300	Topics in Ecology and Evolution	3
URBS 5107	Urban Geography and Planning	3
URBS 5637	Local and Regional Planning	3
PMGT 5180	Public Policy Analysis	3
PMGT 5240	Seminar in Public Management	3

Gerontology Graduate Certificate (Interdisciplinary)

Colleges of Public Health, Nursing, Business and Technology, Arts and Sciences, Medicine, and Education

James Florence, DrPH, CHES, Associate Professor, Interim Chair

College of Public Health
318 Lamb Hall
Box 70624
(423) 439-6720
e-mail: florence@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 health care environment. The focus of the program is to educate students who will be 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:

1. an application;
2. a résumé demonstrating interest and/or experience in gerontology;
3. three (3) letters of recommendation; and
4. official transcripts from all colleges attended.

All applications will be evaluated by an admission 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 successfully completed the sixteen (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:

East Tennessee State University
 College of Public Health
 Gerontology Graduate Certificate Program
 P.O. Box 70573
 Johnson City, TN 37614
 Phone: (423) 547-4900

or

East Tennessee State University
 School of Graduate Studies
 P.O. Box 70720
 Johnson City, TN 37614
 Phone: (423) 439-4221

Program of Study

Each student, with the assistance of an assigned advisor, will design a program of study to include ten (10) hours of core requirements and a minimum of six (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	5535	Health Policy, Politics, and Analysis	3
PUBH	5607	Gerontology and Health	3
IDGE	5500	Adv. Seminar in Gerontology	4

Guided Electives

ALNU	5013	Lifespan Assessment and	2
		Clinical Management	
ALNU	5021	Case Management	2
CDIS	6310	Rehabilitative Audiology for Adults	3
FACS	5427	Diet in Disease I	3
PEXS	5977	Exercise Management for Persons	3
		with Chronic Diseases	
PHYT	5433	Neurotherapeutics III - Geriatrics	2
PUBH	5357	Thanatology	3
PUBH	5110	Assessment of Individual and	3
		Community Health	
PUBH	5510	Long-Term Care Administration	3
SOCI	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.	

**Health Care Management Graduate Certificate
 (Interdisciplinary)**

College of Public Health

Randy Wykoff, M.D., Dean

College of Public Health
 104 Lamb Hall
 Box 70623
 (423) 439-4243
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Brian C. Martin, Ph.D., M.B.A., Program Coordinator

College of Public Health
 Department of Health Services Administration
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**Amal J. Khoury, Ph.D., M.P.H., Interim Chair,
 Health Services Administration**

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College of Business and Technology

Linda Garceau, D.B.A., Dean

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 e-mail: garceaul@etsu.edu

Marha M. Pointer, Ph.D., Associate Dean

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 e-mail: pointer@etsu.edu

Phillip Miller, Ph.D., Chair—Management and Marketing

203 Sam Wilson Hall
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 (423) 439-4422
 e-mail: millerpe@etsu.edu

College of Nursing

Wendy M. Nehring, Ph.D., Dean

310 Nicks Hall
 Box 70617
 (423) 439-7051

Kathy Martin, Ph.D., C.N.E., Chair—Adult Nursing

Director, M.S.N. Program

206 Nicks Hall
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 (423) 439-4399
 e-mail: martinkl@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 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 Health, and the Health Care Management Certificate Program, the student must submit two (2) applications, a dual degree form, one set of the required credentials (transcripts, test scores, references, etc.) and pay one application fee. If a student is currently admitted to one of the above degree programs in administration 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 the Program Coordinator. 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 sixty (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.

Course Requirements

A minimum of eighteen (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 eighteen (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:

East Tennessee State University
 Health Care Management
 Graduate Certificate Program
 Box 70264
 Johnson City, TN 37614
 Attn.: Dr. Brian C. Martin
 Phone: (423) 439-4429 Fax: (423) 439-6710
 e-mail: martinb@etsu.edu

Program of Study

Each student will design a program of study to include five required three 3-credit-hour courses and one 3-credit-hour elective from the approved list of electives.

Required Courses

ACCT/PMNU/PUBH	5050	Health Care Accounting 3 and Finance
MGMT/PMNU/PUBH	5525	Health Services 3 Delivery and Organizations
MGMT/PMNU/PUBH	5530	Health Care 3 Organizations and Law
MGMT/PMNU/PUBH	5550	Human Resources Mgmt 3 in Health Organizations
MGMT/PMNU/PUBH	5590	Strategic Planning 3 for Health Care

(PUBH/PMNU/MGMT 5525 is recommended as the first course to be completed and MGMT/PMNU/PUBH 5590 is recommended as the final/capstone course.)

Electives

MGMT/PMNU/PUBH	5401	Rural Health Issues 3
MKTG	5217	Health Care Marketing 3
PUBH	5400	Epidemiology 3
PUBH	5535	Health Policy, Politics, and Analysis 3
PUBH	5505	Managing Health Care Organizations 3
PMNU	5017	Health Care Informatics 3
PMNU	5957	Alternative Therapies 3
ECON	5317	Health Care Economics 3

Other electives as approved by the faculty advisor.

**Health Services Administration
(HESA)**

Masters of Public Health in Public Health Administration

Amal J Khoury, PhD, MPH, Assistant Professor and Interim Chair

College of Public Health
 42 Lamb Hall
 Box 70264
 (423) 439-4937
 e-mail: khoury@etsu.edu

Brian Martin, PhD, MBA, MPH Coordinator

College of Public Health
 42 Lamb Hall
 Box 70264
 (423) 439-4429
 e-mail: martinb@etsu.edu

Faculty:

Timothy Baylor; Wilsie Bishop; Amal J Khoury; Brian Martin; Chul-Young Roh; Randy Wykoff

**MPH in Public Health Administration
Purpose**

The Masters of Public Health in Public Health Administration is a professional degree preparing graduates for leadership positions in health services management and policy analysis. The MPH also prepares students for doctoral training in public health. The MPH is accredited by the Council on Education for Public Health.

Competencies

By the end of the degree program, students are expected to have achieved the following competencies:

- Discuss main issues of the organization, financing and delivery of health services in the United States.
- Apply legal and ethical principles to issues of health services management and policy analysis.
- Analyze health policy, including policy formulation, implementation, and evaluation.
- Apply principles of strategic planning and marketing in health services organizations.
- Apply quality and performance improvement concepts to address organizational performance.
- Demonstrate written and oral skills for communicating health policy and management issues with different audiences.
- Demonstrate leadership skills for building relations and alliances.
- Apply principles of human resources management in public health and health services organizations.
- Apply principles of accounting and financial management in public health and health services organizations.
- Analyze governance and management structures of health services organizations.

**MPH Admission Requirements
See Public Health**

MPH Degree Requirements

Core Course Requirements

PUBH	5020	Philosophy of Public Health 1
ENVH	5100	Environmental Health Practice I 3
PUBH	5200	Social and Behavioral Foundations of Public Health 3
PUBH	5310	Biostatistics I 3
PUBH	5400	Epidemiology I 3
PUBH	5500	Health Services Administration 3
		Total Core Hour Requirements 16

Public Health Administration Concentration

Required Courses

PUBH 5505	Managing Health Care Organizations	3
PUBH 5525	Health Services Organization & Delivery	3
PUBH 5535	Health Policy, Politics, and Analysis	3
PUBH 5550	Human Resource Management in	3
	Health Organizations	
PUBH 5850	Public Health Program Field Experience	6
	OR	
PUBH 5989	Cooperative Education	6
Electives	.....	9
Total Hours Required Public Health Administration Concentration		43

Higher Education Counseling Concentration

**See Counseling.*

History

Master of Arts in History

Mel Page, Ph.D., Graduate Coordinator

309 Rogers-Stout Hall
 Box 70672
 (423) 439-6802
 e-mail: pagem@etsu.edu

Faculty:

Leila al-Imad; Henry Antkiewicz; Colin Baxter; Douglas Burgess; Ronnie Day; Dorothy Drinkard-Hawkshawe; Emmett Essin; Stephen Fritz; Tom Lee; Brian Maxson; Daniel Newcomer; Melvin Page; Dale Royalty; Dale Schmitt; Andrew Slap; Elwood Watson.

The Department of History offers a graduate degree program leading to the Master of Arts degree.

Program Admission Requirements

The minimum requirements for admission are:

1. A bachelor's degree from an accredited institution.
2. Completion of a minimum of 27 credit-hours of study in history.
3. At least a 3.0 grade point average in upper-level history courses.
4. Letters of recommendation from three (3) undergraduate (preferably History) instructors.
5. An application essay of 250-300 words which conforms to accepted standards of good, written English and which addresses specific fields of historical interest for study in the graduate program.

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 successfully prescribed undergraduate graduate courses or 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 (as outlined in the application essay).

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 twelve (12) credits of approved coursework, the student shall apply to the School of Graduate Studies for admission to candidacy for the master's degree. Students who fail to apply for admission to candidacy after earning twelve (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
HIST 5940	Studies in Historiography	3

Thesis Option—Students who plan to continue graduate study at the doctoral level should write theses; in consultation with the graduate coordinator other students are also encouraged to select this option. 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 (6) credits of required courses, the student must complete HIST 5960 (Thesis) and an 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 (6) 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 re-examination; or fail with an opportunity for further study and re-examination by the committee on a specified date.

Coursework Option—All students selecting the coursework option will be required to complete an additional 33 credits of electives, in addition to the six (6) 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 (9) 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 (9) credits of study. The department chair and graduate coordinator will nominate an advisory committee for each student which will include two (2) professors in the primary area and one (1) 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 re-examination by the committee; or fail with no opportunity for re-examination.

Kinesiology, Leisure and Sport Sciences

Master of Arts in Kinesiology and Sport Studies:

Concentrations in K-12 Physical Education;
 Exercise Physiology and Performance; and Sport Management

Doctor of Philosophy in Sport Physiology and Performance:
 Concentrations in Sport Physiology and Sport Performance

(This program has not yet been approved by the Tennessee Higher Education Commission.)
 Web Page: <http://www.etsu.edu/coe/klss/index.jsp>

Michael H. Stone, Ph.D., Exercise Physiology & Performance Program Coordinator

Box 70654
 (423) 439-5796
 e-mail: stonem@etsu.edu

Keunsu Han, Ph.D., Sport Management Program Coordinator

Box 70654
 (423) 439-4382
 e-mail: hank@etsu.edu

Diana Mozen, Ph.D., K-12 Physical Education Program Coordinator

Box 70654
 (423) 439-6157
 e-mail: mozend@etsu.edu

Faculty:

Kevin L. Burke; Jason Davis; Andy Dotterweich; Keunsu Han; Diana Mozen; Mike Ramsey; Han Kil Shin; Brian Smith; Mike Stone.

The Department of Kinesiology, Leisure and Sport Sciences offers the Master of Arts (M.A.) in Kinesiology and Sport Studies with concentrations in K-12 Physical Education; 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, motorsport management, and advanced graduate studies.

Program Admission Requirements

The following are required for admission into the M.A. in Kinesiology and Sport Sciences graduate program:

1. An undergraduate degree in physical education, exercise science, sport management, or closely related field;
2. GRE scores;
3. 2.7 cumulative undergraduate grade point average on a 4.0 scale;
4. Resume and contact information for at least three academic references;
5. Essay explaining goals and reasons for desiring to study with the Department of KLSS and ETSU.

Degree Requirements

All graduate students in the M.A. in Kinesiology and Sport Studies graduate program are required to take the following core courses:

Core Requirements

SALM	5230	Legal Issues in Physical Education and Sport ...	3
PEXS	5430	Administration of Physical Education and Athletics	3
EDFN	5950	Methods of Research	3
Total Core Hours Required			9

In addition to the nine-hour core listed above, requirements for each concentration are listed below. Other program electives may be arranged in consultation with the program coordinator.

Exercise Physiology and Performance Concentration

- Students may choose to emphasize one of the following tracks:
1. Research – specialize in research and/or seek advanced studies (i.e., doctoral degree)
 2. Wellness – specialize in health and fitness for various populations
 3. Coaching & Sports Performance – specialize in coaching and performance enhancement in sports (cooperative program with sport management)

Common Concentration Requirements for all Tracks

PEXS	5610	Muscle Metabolism and Hormonal Control	3
PEXS	5620	Cardiovascular and Respiratory Physiology	3
Total Concentration Hours			6

Track Requirements

Option 1: Research Track

PEXS	5540	Exercise Testing and Prescription	3
PEXS	5655	Sports Nutrition & Ergogenic Aids	3
PEXS	5656	Sport Conditioning/Training	3
PEXS	5960	Thesis	6
Total Option			15

Research Track Electives 6
 All electives must be approved by the Program Coordinator.

Option 2: Wellness Track

PEXS	5520	Fitness and Sport Testing	3
PEXS	5540	Exercise Testing and Prescription	3
PEXS	5800	Internship in Exercise Physiology	3
SALM	5240	Risk Management & Assessment in Sport	3
Total Option			12

Wellness Track Electives 9
 All electives must be approved by the Program Coordinator.

Option 3: Coaching and Sports Performance Track

PEXS	5520	Fitness and Sport Testing	3
PEXS	5656	Sport Conditioning/Training	3
PEXS	5800	Internship in Exercise Physiology	3
SALM	5243	Sport Marketing	3
Total Option			12

Coaching and Sports Performance Track Electives 9
 All electives must be approved by the Program Coordinator.

Total Hours Required for Degree 36

Sport Management Concentration

Concentration Requirements

SALM	5220	Issues in Sport Management	3
SALM	5215	Sport in Society	3
SALM	5232	Sport Communication and Media Relations	3
SALM	5245	The Financing of Sport	3
SALM	5243	Sport Marketing	3
SALM	5250	Internship in Sport Management	

or			
PEXS	5960	Thesis	6
Total Concentration Hours			21

Approved Concentration Electives 6
 All electives must be approved by the Program Coordinator.

Motorsport Operations Track Concentration

Core Requirements

SALM	5220	Issues in Sport Management	3
SALM	5215	Sport in Society	3
SALM	5233	Public Relations & Mass Media in Motorsport	3
SALM	5246	Financial Management & Sponsorship in Motorsport	3
SALM	5244	Applied Motorsport Marketing	3
SALM	5231	Motorsport Operations	3
SALM	5250	Internship in Sport Management	

or			
PEXS	5960	Thesis	6
Approved Concentration Electives			3

All electives must be approved by the Program Coordinator.
Total Concentration Hours 24

***K-12 Physical Education Concentration**

(*Students must be licensed to teach in any subject area.)

Concentration Requirements

PEXS	5040	Motor Control and Learning	3
PEXS	5110	Curriculum Development	3
PEXS	5460	Inclusion in PE and Sport	3
PEXS	5470	Systematic Observation and Analysis of Instruction	3

PEXS	5960	Thesis	6
or			
PEXS	5961	Capstone Project	3
and			
Advisor-approved course			3

Total Concentration Hours Required 18

Approved Program Electives (9 hours)
 All electives must be approved by the Program Coordinator.

Doctor of Philosophy in Sport Physiology and Performance
(This program has not yet been approved by the Tennessee Higher Education Commission.)

The Department of Kinesiology, Leisure and Sport Sciences offers the Doctor of Philosophy in Sport Physiology and Performance with concentrations in Sport Physiology and Sport Performance.

Program Admission Requirements

The following are required for admission into the Ph.D. in Sport Physiology and Performance graduate program:

1. Payment of required nonrefundable application fee;
2. Completed application form;
3. One official transcript from each undergraduate or graduate institution attended, except previous coursework taken at ETSU;
4. Vita or resume;
5. Personal essay explaining career and educational goals and general area of interest for the dissertation;
6. Official scores on the general test of the Graduate Record Examination (GRE);
7. Four letters of recommendation with at least two from former college instructors;
8. A master's degree (thesis preferred) or bachelor's degree (strong research component) in biology, Exercise Science, or related discipline from an accredited university. It is recommended that entering students have an undergraduate background in statistics, general chemistry, general

biology, human anatomy and physiology. Students admitted with a B.S. or M.S. degree are expected to meet all doctoral requirements, including course prerequisites or equivalencies. Thus, the program of study for a student entering with a B.S. degree will exceed the 72 credit hour minimum and extend the program of study.

9. 3.4 overall GPA for applicants with a master's degree or 3.0 for applicants with a bachelor's degree on a 4.0 scale;
10. A personal or phone interview with members of the admission committee. Factors to be considered in the interview include academic success, evidence of leadership skills, writing skills, computer skills, and oral communication skills.

Degree Requirements

Residency: All students in the Ph.D. in Sport Physiology and Performance graduate program are required to have at least two semesters of full-time residency.

All graduate students in the Ph.D. in Sport Physiology and Performance graduate program are required to take the following:

Major Field Core Requirements	33 Credit Hours
PEXS 6520 Instrumentation in Exercise and Sport Science ...	3
PEXS 6600 Sport Conditioning I	3
PEXS 6610 Sport Physiology I: Muscle Metabolism and Hormonal Control	3
PEXS 6620 Sport Physiology II: Cardiovascular and Respiratory Physiology	3
PEXS 7000 Research Design and Statistics for Sport Science	3
PEXS 7010 Advanced Sport Nutrition and Ergogenic Aids	3
PEXS 7030 Seminar in Sport Science and Performance I	3
PEXS 7430 Seminar in Sport Science and Performance II	3
PEXS 7600 Sport Conditioning II	3
PEXS 7830 Seminar in Sport Science and Performance III	3
MDED 6010 Biometry and Biomedical Computing I	3

Sport Physiology Concentration:

Required Courses:

PEXS 6270 Sport Biomechanics	3
PEXS 7020 Research in Sport Physiology I	3
PEXS 7420 Research in Sport Physiology II	3
PHYT 6304 Neuroscience	6
Required hours	15

Guided Electives based on the needs of the student (examples):

PEXS 5040 Motor Control and Learning	3
PEXS 6280 Sport Skills and Tactics	3
MDED 6020 Biometry and Biomedical Computing II	3
PHYT 6103 Biomechanics	3
PHYT 6405 Pharmacology I for Physical Therapy	2
PHYT 7706 Pharmacology II for Physical Therapy	1
SALM 6235 Sport Psychology	3
BIOM 6010 Biomedical Science I – Molecular Organization Of Cells	3
BIOM 6020 Biomedical Science II – Gene Expression and Regulation	3
BIOM 6030 Biomedical Science III – Cellular Anatomy and Physiology	3
BIOM 6040 Biomedical Science IV-Cell and Organ Interactions	3
BIOM 6210 Scientific Communication I	1
BIOM 6220 Scientific Communication II	1
BIOM 6300 Scientific Ethics	1
Minimum Elective Hours	9

Required concentration hours **24**

Sport Performance Concentration:

Required Courses:

PEXS 6680 Management Skills for Coaching	3
PEXS 7120 Research in Sport Performance	3
PEXS 7400 Internship in Sport Physiology and Performance	3-9
Required hours	15

Guided Electives based on the needs of the student (examples):

PEXS 6280 Sport Skills and Tactics	3
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SALM 5230 Legal Issues in Sport	3
SALM 5245 Financing Sport	3
SALM 6235 Sport Psychology	3
ELPA 6100 Interpersonal Relations	3
ELPA 6560 Small Group Leadership	3
Minimum Elective Hours	9
Required concentration hours	24

Dissertation

PEXS 7960 Dissertation	3-6
Minimum Dissertation Hours	15

Total Minimum Hours required for graduation .. 72

Liberal Studies

Master of Arts in Liberal Studies

Marie Tedesco, Ph.D., Director

916 West Maple
 Box 70659
 (423) 439-4223
 e-mail: tedescm@etsu.edu

Jo Lobertini, Ed.D., Chair

916 West Maple
 Box 70659
 (423) 439-4223
 e-mail: lobertini@etsu.edu

Jill LeRoy-Frazier, Ph.D., Faculty

916 West Maple Street
 Box 70659
 (423) 439-4223
 leroyfra@etsu.edu

Faculty:

The School of Continuing Studies also 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 MALS degree 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, but not graduate degrees. MALS students, except those who choose the Archives Concentration (*see below*)—complete a common core, 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 grade point average of 2.50 on a 4.0 scale.
3. Three letters of recommendation.
4. A successful admissions interview.

Degree Requirements

Students must complete thirteen (13) credits in a common core and 18 - 21 credit-hours in related graduate courses. The thesis option requires 31 total credit-hours, while the project option requires 34 total credit-hours. The MALS core consists of the following courses:

MALS 5000 Foundations in Liberal Studies	1
MALS 5100 Introduction to Interdisciplinary Study	3
* MALS 5200 Seminar in Liberal Studies	3
MALS 5400 Seminar in Interdisciplinary Research	3
MALS 5950 Special Project in Liberal Studies	
or	
MALS 5960 Thesis	3

*May be repeated once when topic changes.

Beyond the MALS core, the program of study will come from offerings of various departments at East Tennessee State University, with the following limitations: Elective courses must come from at least two (2) different academic departments, and except in special circumstances, no more than one (1) course may be taken from colleges other than Arts and Sciences, and Education. Only six (6) credit-hours of coursework may be taken from any one (1) department in Art 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.

Archival Studies

*See *Archival Studies Concentration*

Archival Studies Certificate

*See *Archival Studies Graduate Certificate**

Master of Arts in Teaching

*See *Teaching, Master of Arts*

Marriage and Family Therapy Concentration (Counseling)

*See *Counseling*

Mathematical Sciences

Master of Science in Mathematical Sciences

Robert Gardner, Ph.D., Program Coordinator

308F Gilbreath Hall
Box 70663
(423) 439-6979
e-mail: gardnerr@etsu.edu

Anant Godbole, Ph.D., Chair

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Box 70663
(423) 439-5359
e-mail: godbolea@etsu.edu

Faculty:

Robert Beeler; Robert B. Gardner; Anant Godbole; Teresa Haynes; Michel Helfgott; Debra Knisley; Jeff Knisley; Yali Liu; Yared Nigussie; 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 twelve (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. The department also offers a Master of Science (M.S.) degree in Mathematical Sciences with a concentration in Precollegiate Mathematics.

Mathematical Sciences 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 related area.
2. Submit general GRE scores.
3. Submit three (3) letters of recommendation from individuals familiar with applicant's academic performance and likelihood of success in the School of Graduate Studies.

4. Complete all of the admission requirements of the School of Graduate Studies.

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 examination, the student must make arrangements to do remedial work and retake the examination at the next scheduled time. The student may not register for MATH 5960 (Thesis) until both examinations 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 nine (9) credits can be from courses with numbers 5XX7.

Core Requirements

Every candidate must complete MATH 5210 (Real Analysis I) and MATH 5410 (Modern Algebra I), plus at least two (2) of the following:

MATH 5510 Complex Analysis I
MATH 5610 Applied Mathematics I
MATH 5710 Statistical Methods I
MATH 5340 Graph Theory
MATH 5357 Topology
MATH 5850 Numerical Analysis I

The student's program of study must contain at least one (1) 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 & Numerical Linear
Algebra
MATH 5340-5450 Graph Theory & Adv. Topics in Graph Theory
MATH 5410-5420 Modern Algebra I and II
MATH 5510-5520 Complex Analysis I and II
MATH 5610-5620 Applied Mathematics I and II
MATH 5710-5720 Statistical Methods I and II
MATH 5810-5820 Operations Research I and II
MATH 5850-5860 Numerical Analysis I and II

Courses—No later than the time when a student completes twelve (12) credits of approved coursework, 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 (4) hours 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 Master of Arts in Teaching (M.A.T.) or the Master of Education program.

**Mathematical Sciences with
Precollegiate Mathematics Concentration**

Dr. Anant Godbole, Department Chair and Program Coordinator

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Johnson City, TN 37614
423-439-5359
e-mail: godbolea@etsu.edu

Faculty:

Robert Gardner; Anant Godbole; Teresa Haynes; Michel Helfgott; Debra Knisley; Jeff Knisley; Yali Liu; Yared Nigussie; Rick Norwood; George Poole; Robert Price; Edith Seier; Daryl Stephens.

The Department of Mathematical Sciences offers a program of study leading to the Master of Science (M.S.) degree with a concentration in Precollegiate Mathematics. The precollegiate mathematics concentration is designed for in-service teachers and consists of an eight-course sequence with two tracks - a K-8 mathematics track and a 7-12 track - with the aim of producing an in-depth, profound understanding of the mathematics taught in elementary, middle, and high school. In addition, there are six hours of independent study and thesis research.

The courses for this degree are offered as part of a cohort. All who enroll in the program will proceed through the entire sequence as a group.

Program Admission Requirements

For admission to the program, a student must:

1. Have a bachelor's degree from an accredited college or university;
2. Submit three letters of recommendation from individuals familiar with applicant's academic performance, addressing likelihood of success in the School of Graduate Studies, and;
3. 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.

Minimum Degree Requirements

The courses to be taken are listed below. All students in the program will take the same 21 hours of core courses. The other nine hours taken depend on whether the student is an elementary/middle or middle/secondary teacher.

Core Requirements 21 hours

MATH	5015	Probability and Statistics for K-12 Teachers
MATH	5025	Foundations and Structure of Mathematics I
MATH	5026	Foundations and Structure of Mathematics II
MATH	5040	Reasoning in Mathematics
MATH	5900	Independent Study
MATH	5960	Thesis
CUAI	5910	Assessment Techniques in the Classroom

Elementary Track 9 hours

MATH	5010	Patterns and Problem Solving for Elementary and Middle School Teachers
CUAI	5199	Teaching in a Diverse Society
CUAI	5113	Instructional Excellence in Mathematics K-8

Secondary Track 9 Hours

MATH	5050	Analysis for Teachers
MATH	5060	Algebra for Teachers
MATH	5417	Teaching for Secondary Mathematics

Thesis: No later than the time when a student completes 18 hours of approved work, a committee will be appointed for the student. The chair of the student's committee will ordinarily direct the research and preparation of the thesis. After selecting a topic, the student, in consideration 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.

Some Disclaimers

- This degree will not license you to teach math. (You need a Bachelor of Science degree with a Mathematics Education concentration or the MAT in Secondary mathematics.)

- This degree will not give you an add-on mathematics licensure. (You need 21 hours of mathematics classes at the undergraduate level as specified by the College of Education.)
- This degree is intended primarily for in-service teachers.
- This program will be offered, at least for the first few years, as a cohort program. Check with Anant Godbole (godbolea@etsu.edu) to see when the next cohort will start.
- Graduates of the secondary program will have enough mathematics hours to be highly qualified as teachers of mathematics under No Child Left Behind; graduates of the elementary program who have at least 3 undergraduate hours of mathematics prior to this degree will also be highly qualified as teachers of mathematics under No Child Left Behind.
- Graduates of this program will not be qualified to teach college-level mathematics at a community college or four-year college. Persons intending to pursue a career in collegiate teaching should enroll in the regular Master of Science in Mathematical Sciences.

**Microbiology Concentration
(Biomedical Sciences)**

Priscilla Wyrick, Ph.D., Department Chair

Room 142, VA Building 1
College of Medicine, Department of Microbiology
Box 70579
(423) 439-6294
e-mail: pbwyrick@etsu.edu

Faculty:

Annette M. Clemons; Donald A. Ferguson; J. Russell Hayman; Michael Kruppa; Udayasankar Kumaraguru; Robert V. Schoborg.

The Microbiology Department consists of seven faculty with a diverse range of interests. Research in the department encompasses many areas of microbiology including: biology and immune response to microsporidia, persistence and pathogenesis of Chlamydia and Helicobacter pylori, microbial products and innate immunity, quorum sensing and signal transduction in yeast, as well as the interaction between bacterial and viral pathogens. 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.

**Not-For-Profit Administration Concentration
(Public Administration)**

* See Public Administration

**Master of Science in Nursing
Master of Science in Nursing -
Regents Online Degree Program
Doctor of Philosophy in Nursing**

Advanced Nursing Practice Post-Master's Certificate

*See Advanced Nursing Practice Post-Master's Certificate

Advanced Nursing Practice Post-Master's Certificate

(Regents Online Degree Program)

Health Care Management Graduate Certificate

*See Health Care Management Graduate Certificate

Gerontology Graduate Certificate

*See Gerontology Graduate Certificate

College of Nursing

Wendy M. Nehring, Ph.D., Dean

310 Roy S. Nicks Hall
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Adult Nursing (ALNU)

Kathy Martin, Ph.D., C.N.E., Chair

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Family/Community Nursing (FCNU)

Susan Grover, Ph.D., Chair

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Professional Roles/Mental Health Nursing (PMNU)

Judith R. Anderson, Ph.D., Chair

291 Roy S. Nicks Hall
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 e-mail: andersj@etsu.edu

Faculty:

Nancy M. Alley; Judith R. Anderson; Mona Baharestani; Sally S. Blowers; Sandy Calhoun; Charles Cooley; Janne Dunham-Taylor; Joellen B. Edwards; Linda Garrett; Masoud Ghaffari; Lee Glenn; Nancy Granberry; Audrey Greenwell; Susan M. Grover; Patricia A. Hayes; Susan Hossler; Frances Jackson; Amy Kaplan; Sharon Loury; Catherin Lauzon; Jo-Ann S. Marrs; Kathy Martin; Peggy McConnell; Judy G. McCook; Carolyn Merriman; Tamera Pearson; Kathleen M. Rayman; Judith Rice; Jennifer Steward-Glenn; Rachel Thomas; Sharon Trumbley; Pearl Ume-Nwago; Patricia Vanhook; Joy E. Wachs; Jennie Walls; Amy Swango Wilson.

Master of Science Degree

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, as well as for leadership roles. The nurse in advanced practice works in interdisciplinary relationships and collaborative partnerships to meet health care needs and provide high quality, cost-effective client care. The master's prepared 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 program is on the delivery of nursing care to rural and/or underserved clients across the lifespan. Curricula are available to prepare students as Nurse Administrators, Clinical Nurse Leaders, or Family, Adult, Gerontological, or Psychiatric/Mental Health Nurse Practitioners. Students who complete course requirements for the nurse practitioner specialties, nursing administration or Clinical Nurse Leader are qualified to take a national certification examination. The program is fully accredited by the Commission on Collegiate Nursing Education (CCNE.) The CCNE is an additional resource of information regarding tuition, fees, and program length. (One DuPont Circle, NW, Suite 530, Washington, DC 20036-1120, 1-202-887-6791)

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 (B.S.N.) 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 (3.0 grade point average on a 4.0 scale) in the nursing major;
3. Submission of Graduate Record Examination (GRE) scores (only for applicants with an undergraduate GPA for their B.S.N. degree lower than 3.2) Students with a GPA of 3.2 or higher will not be required to submit GRE scores.
4. Licensure in the United States as a registered nurse and eligibility for licensure in Tennessee or compact state.

Documentation of the above requirements must be included with the application materials submitted to the School of Graduate Studies along with a current resume. Three (3) professional references should be included

in the application packet. Applicants are encouraged to request references from individuals who can best assess one's potential for graduate study (e.g. previous nursing faculty, other master's prepared nurses). 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 the appropriate deadline. Application deadlines are as follows:

- Fall semester deadline - February 1;
- Spring semester deadline - July 1;
- Summer semester deadline - December 1.

Factors given consideration in the admission decision include the following: Grade Point Average, level of GRE performance if required, 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, required by the School of Graduate Studies, and in a vita/résumé submitted with the application or 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 or a compact state, 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 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 36 credit-hours. Students in the Clinical Nurse Leader specialty must complete 44 credit hours. 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 (3) 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 each term. All students in the master's degree nursing program are required to take the following core courses:

PMNU	5000	Conceptual Systems in	2
		Advanced Nursing Practice	
PMNU	5001	Nursing Research and Design	3

PMNU	5002	Policy & Ethics in Advanced Nursing Practice or (For Gerontological Nurse Practitioner Students)	
PUBH	5607	Gerontology and Health	3
Total Core Hours			8

Advanced Practice Nursing Core

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 Lifespan	3
ALNU	5010	Health Assessment Throughout the Lifespan: Practicum	3
ALNU	5016	Pathophysiology for Nursing Diagnoses and Interventions	3
ALNU	5018	Advanced Clinical Pharmacology	3
PMNU	5004	Seminar in Professional Roles	1
Total Advanced Practice Nursing Core			13

Additional Family Nurse Practitioner Specialty Courses

Additional courses required in the Family Nurse Practitioner specialty include the following:

ALNU	5011	Lifespan Assessment and Clinical Management: Young and Middle Adults	2
ALNU	5012	Lifespan Assessment and Clinical Management: Young and Middle Adults Practicum	3
ALNU	5013	Lifespan Assessment and Clinical Management: Older Adults	2
ALNU	5014	Lifespan Assessment and Clinical Management: Older Adults Practicum	3
FCNU	5021	Lifespan Assessment and Clinical Management: Women's Health	2
FCNU	5022	Lifespan Assessment and Clinical Management: Women's Health Practicum	3
FCNU	5023	Lifespan Assessment and Clinical Management: Children and Adolescents	2
FCNU	5024	Lifespan Assessment and Clinical Mgmt.: Children & Adolescents Practicum	3
PMNU	5402	Behavioral Health Concepts for Adults	3
FCNU	5950	Internship in Advanced Nursing Practice	4

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 Lifespan Assessment and Clinical Management: Children and Adolescents courses (5 credit-hours). In lieu of these two (2) courses, students in the Adult Nurse Practitioner specialty are required to take ALNU 5021 Case Management (2 credit-hours) and ALNU 5038 Pharmacology and Therapeutics for Older Adults (1 credit-hour).

Gerontological Nurse Practitioner Specialty Courses

Required specialty courses for the Gerontological Nurse Practitioner students include:

ALNU	5013	Lifespan Assessment and Clinical Management: Older Adults	2
ALNU	5014	Lifespan Assessment and Clinical Management: Older Adults Practicum	3
ALNU	5031	Care of the Older Adult in Structured Settings	2
ALNU	5032	Practicum in the Care of the Older Adult in Structured Settings Practicum	3
PMNU	5402	Behavioral Health Concepts for Adults	3
ALNU	5021	Case Management	2
ALNU	5022	Case Management Practicum	3
ALNU	5011	Lifespan Assessment and Clinical Management: Young and Middle Adults	2
ALNU	5038	Pharmacology and Therapeutics for Older Adults	1
FCNU	5950	Internship in Advanced Nursing Practice	4

Psychiatric/Mental Health Nurse Practitioner Specialty Courses

Required specialty courses for Psychiatric/Mental Health Nurse Practitioner students include:

PMNU	5404	Advanced Psychiatric Nursing Care I	3
PMNU	5405	Advanced Psychiatric Nursing Care I: Practicum	3
ALNU	5021	Case Management	2
PMNU	5303	Psychopharmacology	3
PMNU	5408	Advanced Psychiatric Nursing Care II	2
PMNU	5409	Advanced Psychiatric Nursing Care II: Practicum	2
PMNU	5410	Interpersonal Treatment Modalities	3
PMNU	5411	Interpersonal Treatment Modalities: Practicum	3
FCNU	5950	Internship in Advanced Nursing Practice	4

Nursing Administration Specialty Courses

In addition to the M.S.N. core courses, students in the Nursing Administration specialty will complete the following courses:

ALNU	5021	Case Management	2
PMNU	5017	Health Care Informatics	3
PMNU	5501	Leadership in Nursing Administration	1
PMNU	5520	Fiscal Management in Nursing	3
PMNU	5530	Health Care Org. & Law	3
PMNU	5535	Quality Management in Health Care Org.	3
PMNU	5550	Human Resource Mgmt. in Health Org.	3
PMNU	5510	Organizational Theory	3
PMNU	5560	Nursing Administration Practicum I	2
PMNU	5570	Nursing Administration Practicum II	2
PMNU	5590	Strategic Planning for Health Care	3

Master of Science - Clinical Nurse Leader (CNL) Clinical Nurse Leader Specialty Courses

In addition to the M.S.N. core courses, students in the Clinical Nurse Leader specialty will complete the following courses:

ALNU	5009	Health Assessment Throughout the Lifespan	3
ALNU	5010	Health Assessment Throughout the Lifespan: Practicum	3
ALNU	5016	Advanced Pathophysiology	3
ALNU	5021	Case Management	2
ALNU	5210	Advanced Pharmacology for Non-Prescribers	3
PMNU	5017	Health Care Informatics	3
PMNU	5200	Microsystem Management for the CNL	3
PMNU	5520	Fiscal Management in Nursing Admin.	3
PMNU	5535	Quality Management in Health Care	3
FCNU	5220	Population-based Clinical Nursing Care	3
FCNU	5950	Internship in Advanced Nursing Practice	4
Elective			3

Advanced Nursing Practice Graduate Certificate Post-Master's

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/résumé, 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 or compact state.

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. All non-nurse practitioner post-master's students are required to complete a minimum of 500 clock hours of supervised clinical 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.

**Master of Science in Nursing
Regents Online Degree Program**

The Master of Science in Nursing (MSN) degree is offered through the Regents Online Degree Program (RODP), and is delivered following the standard protocol established for the delivery of RODP courses and programs. The program includes four concentrations: Nursing Education, Nursing Administration, Nursing Informatics, and Advanced Practice. Courses are offered each semester (fall, spring, and summer) through all six Tennessee Board of Regents universities. The program requires completion of 32-45 semester credit hours depending on the concentration. For more information, please visit www.tn.regentsdegrees.org/msn.

Program Admission Requirements

All candidates must apply to the Regents Online Degree Program before applying to the home school. The RODP application can be found at www.rodop.org.

Admission to the program will be based on competitive selection from the pool of applicants who meet the School of Graduate Studies admission requirements from the designated home school. Additional admission requirements for the Master of Science in Nursing Regents Online Degree Program include:

1. Eligibility to practice as a Registered Nurse in Tennessee or the state in which clinical assignments are completed. Appropriate licensure/ authorization must be obtained during the first semester following admission to the program.
2. Overall G.P.A. of 3.0 on a 4.0 scale.
3. TOEFL score of 600 if native language is not English.
4. A written document prepared by the applicant that includes a resume, a discussion of prior professional experience, future career goals, and reasons for pursuing graduate study.
5. Letters of recommendation from at least three persons (a minimum of one academic) familiar with the applicant's academic and professional background and experience in nursing practice, specifying in detail the applicant's capabilities for graduate study and for future practice as an advanced practice nurse.
6. A Bachelor's degree:
 - a. Requirements for the RN with a BSN degree: completion of the BSN.
 - b. Requirements for the RN with a BA/BS non-nursing degree: completion of the following 12 units RN/MSN nursing bridge sequence: NURS 4210 Healthcare Research; NURS 4211 Nursing Leadership and Management; NURS 4212 Trends and Issues in Nursing and Healthcare; NURS 4213 Community Health Nursing. RN to MSN graduates will not be awarded the BSN degree.

Documentation of the above requirements must be included with the application materials submitted to the School of Graduate Studies. 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 the appropriate deadline. Application deadlines are as follows: fall semester deadline is February 1; spring semester deadline is July 1; summer semester deadline is December 1.

Factors given consideration in the admission decision include the following: Grade Point Average, 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. A personal interview may be required.

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 the state in which clinical assignments will be completed, 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 required to provide their own transportation to clinical sites.

Progression Standards - MSN-RODP

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 - MSN-RODP

Students enrolled in the Nursing Administration specialty must satisfactorily complete 34 credit hours of coursework. Students in the Nursing Education specialty must complete 33 credit hours and students in the Advanced Practice specialty must complete 46 credit hours. Specific courses are required of students who plan to take a national certification examination. All students are required to pass a written comprehensive examination or satisfactorily complete culminating experience in the final semester of the program.

Courses are selected and approved in conjunction with the student's advisor.

Students enrolled in the Master of Science in Nursing - Regents Online Degree Program (MSN-RODP) will complete the following core courses and additional specialty nursing courses.

NURS 5000	Theoretical Foundations	3
NURS 5001	Health Care Policy	3
NURS 5002	Advanced Nursing Research	3
NURS 5003	Advanced Role Development	3
NURS 5990	Scholarly Synthesis/Research	3

Advanced Practice Concentration Courses:

Additional courses required in the Advanced Practice concentration include the following:

NURS 5101	Advanced Health Assessment	3
NURS 5102	Advanced Health Assessment - Clinical	1
NURS 5103	Advanced Pathophysiology	3
NURS 5104	Advanced Pharmacology	3

Family Nurse Practitioner Courses:

Additional courses required in the Family Nurse Practitioner specialty include the following:

NURS 5601	Family Nurse Practitioner I	3
NURS 5602	Family Nurse Practitioner I - Clinical	2
NURS 5603	Family Nurse Practitioner II	3
NURS 5604	Family Nurse Practitioner II - Clinical	4
NURS 5605	Family Nurse Practitioner III	3
NURS 5606	Family Nurse Practitioner III - Clinical	2
NURS 5609	Adv. Family Nurse Practitioner Practicum	4

Nursing Administration Courses:

Additional courses required in the Nursing Administration specialty include the following:

NURS 5301	Nursing Administration I	3
NURS 5302	Nursing Administration II	3
NURS 5303	Health Care Finance	3
NURS 5304	Human Resources Management	3
NURS 5305	Quality Mgmt. in Nursing and Health Care	3
NURS 5309	Nursing Administration Practicum	4

Nursing Education Courses:

Additional courses required in the Nursing Education specialty include the following:

NURS 5201	Theories of Nursing Education	3
NURS 5202	Teaching Strategies & Evaluation Methods	3
NURS 5203	Curriculum Design	3
NURS 5103	Advanced Pathophysiology	3
NURS 5207	Clinical Focus Practicum	2
NURS 5209	Nursing Education Practicum	4

Students enrolled in the Nursing Education specialty will complete 6 hours from one of the following clinical areas:

Adult Health

NURS 5501	Advanced Adult Health Nursing I	3
NURS 5503	Advanced Adult Health Nursing II	3

Psychiatric/Mental Health *(not currently available)*

NURS 5511	Psychiatric Nursing Care I	3
NURS 5513	Psychiatric Nursing Care II	3

Critical Care

NURS 5522	Critical Care I	3
NURS 5523	Critical Care II	3

Women’s Health and Perinatal Nursing *(not currently available)*

NURS 5541	Women’s Health & Perinatal Nursing I	3
NURS 5543	Women’s Health & Perinatal Nursing II	3

Pediatrics

NURS 5631	Pediatric Nursing I	3
NURS 5633	Pediatric Nursing II	3

Nursing Informatics Courses:

Additional courses required in the Nursing Informatics specialty include the following:

NURS 5401	Informatics & Information Management	3
NURS 5402	Health Care Information Systems	3
NURS 5403	Analysis & Design of Health Care Information Systems	3
NURS 5404	Evaluation of Health Care Information Sys.	3
NURS 5405	Health Care Data Analysis Techniques	2
NURS 5407	Informatics Applications/Practicum I	2
NURS 5409	Informatics Applications/Practicum II	2

Regents Online Degree Program

Family Nurse Practitioner Certificate - Post Master’s (Nursing)

The Family Nurse Practitioner (FNP) Certificate Program provides a formal program of study for Master’s-prepared nurses in taking the national certification exam to practice as a Family Nurse Practitioner. In order to be eligible to take the certification, students must “successfully complete graduate didactic and clinical requirements of a master’s nurse practitioner program, formal graduate-level certificate, or Master’s level NP program in the desired area of practice.” The FNP Certificate Program provides a formal program of study to meet this need for students who already have the Master of Science in Nursing degree without requiring them to complete a second master’s degree. Criteria for admission includes:

1. A master’s degree in nursing from an accredited program (NLNAC or CCNE).
2. Satisfactory completion of the following courses at the Master’s level:
 - Advanced Health Assessment - 3 semester hours
 - Advanced Health Assessment (Clinical or Lab) - 1 semester hour
 - Advanced Pathophysiology - 3 semester hours
 - Advanced Pharmacology - 3 semester hours.
3. Eligibility to practice as a Registered Nurse in Tennessee or the state in which clinical assignments are completed. Application for licensure/ authorization must be obtained during the first semester following admission to the program.

4. Overall G.P.A. of 3.0 on a 4.0 scale.
5. TOEFL score of 600 if native language is not English.
6. A written document prepared by the applicant that includes a resume, a discussion of prior professional experience, future goals, and reasons for pursuing graduate study.
7. Letters of recommendation from at least three persons (a minimum of one academic) familiar with the applicant’s academic professional background, and experience in nursing practice, specifying in detail the applicant’s capabilities for graduate study and future practice as an advanced practice nurse.

Family Nurse Practitioner Certificate Curriculum

NURS 5601	Family Nurse Practitioner I	3
NURS 5602	Family Nurse Practitioner I - Clinical	2
NURS 5603	Family Nurse Practitioner II	3
NURS 5604	Family Nurse Practitioner II - Clinical	4
NURS 5605	Family Nurse Practitioner III	3
NURS 5606	Family Nurse Practitioner III - Clinical	2
NURS 5609	Advanced Family NP Practicum	4

Total Credit Hours 21

Total Contact Hours - Advance Family NP

Clinical/Practicum 780 hours

Doctor of Philosophy

The purpose of the Doctor of Philosophy in Nursing (Ph.D.) degree program at ETSU is to prepare expert practitioners and nurse scientists who are capable of conducting 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 and researchers in schools of nursing, health agencies, and complex health care delivery systems across the state and nation. The Ph.D. 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/or underserved population groups. The student is expected to demonstrate a sound knowledge of 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. The curriculum is designed to accommodate working professionals. A dissertation on a topic of interest is required.

Program Admission Requirements

Applicants seeking admission to the Ph.D. 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 with payment of a nonrefundable application fee; official transcripts of all previous undergraduate and graduate work; and a written essay.

In addition, College of Nursing requirements for admission to the Ph.D. 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 4.0 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 Tennessee or compact state;*
4. At least two (2)-years of full-time work experience (or equivalent) in nursing as a registered nurse;
5. Three (3) letters of recommendation, one (1) from the applicant’s current (or most recent) supervisor, one (1) from a faculty member who worked directly with the applicant during previous graduate study, and one (1) 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 résumé or vita, as appropriate.
- * Or equivalency for international applicants.

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 United States, letters of recommendation, and résumé/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 Ph.D. Admissions Committee.

Factors given consideration in the admission decision include: previous graduate grade point average (GPA), 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 Ph.D. Admissions Committee may admit a promising applicant who has not met all the admission requirements on a conditional basis.

Advisement

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 and advising the student throughout their program of study and residencies.

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 (GPA) 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 (GPA). Students must also have a 3.0 "B" grade point average (GPA) 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 courses, the student is ineligible to continue in the program. If dismissed, a student has the option to apply for reinstatement. Students must become licensed or authorized to practice professional nursing in Tennessee or a compact state, 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.

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 Ph.D. 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. (*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.

Comprehensive Examination—Prior to candidacy for the doctoral degree, a student must successfully complete a written and/or oral examination. The goal of the comprehensive examination will be to demonstrate synthesis of the subject material. The examination will consist of four (4) questions, one from each of the following areas: research; theory, concepts, and philosophy; policy, ethics, and collaboration; and a cognate area. All students must be registered for a minimum of one (1) semester hour of coursework in the semester in which they take or re-take the entire examination; upon completion of all coursework the student should register

for a minimum of one (1) credit hour of ALNU/FCNU/PMNU 6960-Readings and Research. After students pass the comprehensive examination they will be admitted to candidacy. If the student fails the comprehensive examination a second attempt can be made; however, if the student is unable to successfully pass the comprehensive examination after two (2) attempts they will be dismissed from the program.

Dissertation—Each doctoral candidate must complete a dissertation as a major requirement for the Ph.D. 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 (3) 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 Ph.D. degree program by a student is seven (7) years from the date of enrollment in the earliest course applied toward the degree.

Program of Study—The Ph.D. curriculum is composed of a minimum of 59 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; and dissertation hours. A minimum of twelve (12) credits is required for each cognate. Opportunities for role development are provided within the nursing and cognate courses and through professional activities as specified within the student's residency plans. Students in the Ph.D. 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:

Prerequisite: An introduction to statistics course at the graduate level*

Foundations of Scientific Inquiry

PMNU 6100	Philosophy of Nursing Science	3
PMNU 6110	Interdisciplinary Approaches to Bioethical Issues	3

Research Methods and Data Analysis

PMNU 6020	Advanced Data Analysis	4
FCNU 6030	Quantitative Methods in Nursing Research	3
PMNU 6040	Qualitative Methods in Nursing Research	3
FCNU 6014	Measurement of Clinical Outcomes	3

Nursing Science

PMNU 6000	Theoretical Foundations of Nursing Practice	3
PMNU 6002	Health Policy Leadership	3
ALNU 6010	Concept Development in Nursing Practice I	3
ALNU 6012	Concept Development in Nursing Practice II	3
ALNU 6900	Dissertation Seminar	1
FCNU 6016	Collaborative Approaches to Practice	3

Guided Elective 3 Credit Hours

At least one nursing or non-nursing elective

Cognate Course Selections 9 Credit Hours

Dissertation 12 Credit Hours

ALNU/FCNU/PMNU 6960

Doctoral Dissertation 12

Total Hours Required 59 Credit Hours

* Any appropriate 5000/6000/7000 level three credit hour statistics course taken at ETSU or another university may be acceptable. Please submit syllabus for approval prior to registration to the Office of Academic Programs and Student Services. The statistics course must be completed within ten years of enrollment in the first research course. ECON 5010 and ELPA 7810 are potential ETSU courses.

** 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 qualifying examination. If all coursework is completed, students must register (until they are admitted to candidacy) for at least one semester hour of ALNU/FCNU/PMNU 6990 Readings and Research each semester.

The Bill Gatton College of Pharmacy

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Faculty:

Larry D. Calhoun; Stacy D. Brown; Charles C. Collins; Freddy M. Creekmore, Jr.; Kathryn A. Creekmore; Julie B. Dumond; Loni T. Garcia; Saiedreza Hariforoosh; Robin M. Henry; Richard A. Hess, Jr.; David L. Hurley; Ralph A. Lugo; Brian L. Odle; Peter C. Panus; Brooks B. Pond; Victoria Palau Ramsauer; David S. Roane; David W. Stewart.

Accreditation Status: *Precandidate accreditation status was awarded by the Accreditation Council for Pharmacy Education, ACPE, Board of Directors during the January 10-13, 2007, meeting.*

The Bill Gatton College of Pharmacy is an integral component of East Tennessee State University Division of Health Affairs which is comprised of the J.H. Quillen College of Medicine, the College of Public Health, the College of Clinical and Rehabilitative Health Sciences, and the College of Nursing. The Bill Gatton College of Pharmacy is physically located on the grounds of the J.H. Quillen Veterans Affairs Medical Center, Mountain Home, in Johnson City. The College of Pharmacy's professional program, which leads to a Doctor of Pharmacy Degree, Pharm.D., is designed to prepare pharmacists to work in rural community and institutional-based practices.

ETSU, along with community leaders, has been investigating the feasibility of initiating a college of pharmacy for over a decade. With the state's only college of pharmacy almost 500 miles away, most students from this region choose to attend out-of-state public and private institutions for their pharmacy education. As a result, few return to this area to practice. That fact, plus the lack of state funds for a second state-funded college of pharmacy, has fueled the demand for pharmacists in this Southern Appalachian region.

In January 2004 a tuition-funded, rural-focused model was developed as a possible solution to this dilemma. Realizing that considerable private support would be necessary for the model to work, a steering committee led by the Vice President for Health Affairs and made up of ETSU faculty and staff, pharmacy community leaders, and community leaders at-large began to develop and implement such a plan.

Approval was obtained from the ETSU system, the Tennessee Board of Regents, and the Tennessee Higher Education Commission. Governor Phil Bredesen lent his support to this effort with the challenge to raise \$5 million in 90 days and an additional \$2.5 million before the first class of students entered the program. The \$5 million was raised in 58 days, and the College of Pharmacy passed the \$7.5 million mark on April 3, 2006, with Governor Bredesen personally making that announcement at ETSU. Recognizing the value of a college of pharmacy at ETSU, over 900 individuals and organizations contributed financially to this effort. The support and energy from the people of this region have been clearly evident throughout this process.

For further information about The Bill Gatton College of Pharmacy, please contact the Admissions Office, ETSU College of Pharmacy, Box 70414, Johnson City, TN 37614-7414; E-mail: pharmacy@etsu.edu; Phone: (423) 439-6300; Fax: (423) 439-6320.

**Pharmacology Concentration
(Biomedical Sciences)**

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Gregory A. Ordway, Ph.D., Department Chair

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Faculty:

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The Department of Pharmacology offers specialized training in pharmacology and toxicology to students wishing to obtain a Doctor of Philosophy or Master of Science degree in Biomedical Science with a concentration in Pharmacology. Faculty and students are using a diversity of modern and classical research techniques to address experimental problems at molecular, cellular, organ, and whole animal levels. Ten faculty members and five adjunct faculty offer unique training opportunities in neuropharmacology, cardiovascular pharmacology, immunopharmacology, and forensic toxicology.

Physical Therapy

Doctor of Physical Therapy

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David Arnall; Robert C. Barnhart; Ute Breese; Mary Jo Davenport; Susan Epps; Bea Owens; Duane A. Williams.

Support Faculty:

Thomas E. Kwasigroch; Ronald H. Baisden; Peter C. Panus..

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 offers the Doctor of Physical Therapy (D.P.T.) 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 judgment. 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 lifespan, 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. Students are encouraged to submit applications well in advance of the July deadline to allow sufficient time for processing and review. 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.

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 2.70 (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 (3) 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 the following:

Statistics	3
General Biology with Lab	8
General Chemistry with Lab	8
General Physics with Lab	8
*Human Anatomy	3-4
*Human Physiology with Lab	4
Exercise Physiology	3-4
Psychology	6

*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. Tactile ability sufficient for physical assessment and treatment.
 - h. 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 an "C" (2.0), or when the overall grade point average per semester or for all semesters completed in the program is less than an "B" (3.0).

Traditional entry students will matriculate through a fixed, prescribed curriculum in a three-year, full-time program. Additional retention requirements include the following:

1. Successful completion of a comprehensive written examination at the end of the first five (5) 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 proceeding 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.

Doctor of Physical Therapy Entry-level Curriculum

PHYT 6101	Functional Human Anatomy	6
PHYT 6102	Pathophysiology	4
PHYT 6103	Biomechanics	3
PHYT 6111	PT Basic Skills I	2
PHYT 6151	Professional Issues I	1
PHYT 6212	PT Basic Skills II	2
PHYT 6213	PT Basic Skills III	4
PHYT 6221	Musculoskeletal I	4
PHYT 6261	Intro. to Research Process	1
PHYT 6271	Clinical Practicum I	2
PHYT 6304	Neuroscience	6
PHYT 6314	PT Basic Skills IV	2
PHYT 6315	Electrotherapeutics	3
PHYT 6322	Musculoskeletal II	4
PHYT 6331	Neurotherapeutic Prin. I	4
PHYT 6405	Pharmacology I for PT	2
PHYT 6416	Wound and Burn Care	2
PHYT 6432	Neurotherapeutics II (Peds)	3
PHYT 6433	Neurotherapeutics III (Geri)	2
PHYT 6452	Clinical Correlates I	1
PHYT 6462	Scientific Inquiry for PTs	1
PHYT 6472	Clinical Practicum II	2
PHYT 6523	Prosthetics and Orthotics	3
PHYT 6541	Cardiopulmonary Rehabilitation	2
PHYT 6553	Professional Issues II	2
PHYT 6554	Clinical Correlates II	1
PHYT 6573	Clinical Practicum III	2
PHYT 6663	Human Research for PT	1
PHYT 6674	Internship I	12
PHYT 6681	Administration and Management	2
PHYT 7706	Pharmacology II for PT	1
PHYT 7717	Current Trends in PT	1
PHYT 7764	Case Study in PT	1
PHYT 7775	Internship II	10
PHYT 7807	Imaging Studies for PT	2
PHYT 7855	Lifespan Development for PT	3
PHYT 7856	Health and Wellness Strategies in PT	3
PHYT 7857	Differential Diagnosis for PT	2
PHYT 7882	Teaching and Learning for PT	1
PHYT 7883	PT Management and Leadership	2
PHYT 7976	Internship III	15
Total Hours Required for Degree		127

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 (3) 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 the 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 the student receives 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 proceeding to the next semester of study. Promotion will be determined by the student 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 of direct patient clinical practice experience within two (2)-years prior to enrollment in the D.P.T. program may opt to take nine (9) credit-hours of advanced coursework in lieu of nine (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 for PT.)

Graduates of East Tennessee State University'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
PHYT 6452	Clinical Correlates I	1
PHYT 6462	Scientific Inquiry for PT	1
PHYT 6554	Clinical Correlates II	1
PHYT 6663	Human Research in PT	1
PHYT 7706	Pharmacology II for PT	1
PHYT 7717	Current Trends in PT	1
PHYT 7764	Case Study in PT	1
PHYT 7882	Teaching and Learning for PT	1
PHYT 7855	Lifespan Development for PT	3
PHYT 7883	PT Management and Leadership	2
PHYT 7856	Health and Wellness in PT	3

PHYT 7857	Differential Diagnosis for PT	2
PHYT 7807	Imaging Studies for PT	2
PHYT 7976	Internship III	6-15

Graduates of East Tennessee State University's M.P.T. program who are admitted with advanced standing will take the following courses:

PHYT 6663	Human Research in PT	1
PHYT 7706	Pharmacology II for PT	1
PHYT 7764	Case Study in PT	1
PHYT 7882	Teaching and Learning for PT	1
PHYT 7855	Lifespan Development for PT	3
PHYT 7883	PT Management and Leadership	2
PHYT 7856	Health and Wellness in PT	3
PHYT 7857	Differential Diagnosis for PT	2
PHYT 7807	Imaging Studies for PT	2
PHYT 7976	Internship III	6-15

Graduates of physical therapy programs other than East Tennessee State University'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 in PT	1
PHYT 7706	Pharmacology II for PT	1
PHYT 7764	Case Study in PT	1
PHYT 7882	Teaching and Learning for PT	1
PHYT 7855	Lifespan Development for PT	3
PHYT 7883	PT Management and Leadership	2
PHYT 7856	Health and Wellness in PT	3
PHYT 7857	Differential Diagnosis for PT	2
PHYT 7807	Imaging Studies for PT	2
PHYT 7976	Internship III	6-15

**Physiology Concentration
(Biomedical Sciences)**

Tom Ecay, Ph.D., Program Coordinator:

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William L. Joyner, Ph.D., Department Chair

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Faculty:

Tom 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, hypertension, and molecular mechanisms of heart failure. 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, fluid and electrolyte transport, cancer, and cell signaling.

Precollegiate Mathematics Concentration

* See *Mathematics*

Professional Studies

**Master of Professional Studies
 Concentration in Strategic Leadership
 Division of Cross-Disciplinary Studies
 in the School of Continuing Studies**

Jo Lobertini, Ed.D., Chair, Program Coordinator

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Faculty:

**The Master of Professional Studies Program draws graduate faculty from throughout East Tennessee State University and Tennessee Board of Regents universities.*

The Master of Professional Studies (MPS) is an online interdisciplinary graduate degree program in the social sciences and the professions. The 33-hour MPS program is designed for working adults who wish to pursue graduate professional studies that combine two or more disciplines. Because the MPS students' academic needs and interests are multidisciplinary, they generally are not served by traditional professional programs. The MPS allows for the development of professionally oriented programs that respond to the dynamic needs of students working in or preparing for rapidly changing professional environments and expectations. In this program of interdisciplinary graduate studies, students make connections between various professional fields and traditional social science disciplines. For the purposes of the MPS program, *profession* is defined broadly, not limiting profession to traditional areas such as law and medicine. Professionals who might be served by the MPS program include individuals working in commerce, information technology, mass media, government, social services, health care, and education. The MPS is a Regents Online Degree Program (RODP) offered cooperatively by all Tennessee Board of Regents universities.

Program Admission Requirements

Requirements for unconditional admission:

1. An undergraduate grade point average of at least 2.75 on a 4.0 scale from an accredited college or university.
2. An acceptable score on the GRE, generally at least 400 verbal, 500 quantitative, and a 4.0 on analytical writing.
3. Applicants with five or more years of professional work experience may submit a portfolio in lieu of the GRE. The portfolio is to include (a) a resume; (b) a 500- to 600-word essay detailing the reasons for wanting to enter the MPS program and discussing how the program will help the applicant achieve personal and professional goals; and (c) two sealed letters of professional reference. Other items that an applicant may include in the portfolio are a description of professional responsibilities, professional achievements and professional awards and recognitions. The admission decision will be based on the entire academic and professional record. All portfolio materials should be submitted in one package to the School of Graduate Studies, Box 70720, Johnson City, TN 37614.

Requirements for conditional admission:

Applicants who do not meet the requirements for unconditional admission might be admitted conditionally if their entire academic and professional records indicate potential for success in the program. Conditions may include, but are not limited to, taking prerequisite undergraduate courses, enrolling in specified graduate-level courses, and achieving a specified grade point average.

Degree Requirements

A minimum of 33 credit hours is required. Students must complete nine hours of a common core, complete a concentration of 21 hours which must include a second research class, and complete the Culminating Professional Project for three hours. The MPS core consists of the following courses:

PRST 5100	Professional Environment: Issues	3
	and Ethics	
PRST 5200	Globalization and the Professions	3
PRST 5300	Research Methods	3

The only concentration currently available is Strategic Leadership. For the Strategic Leadership concentration, students will complete seven of the following courses, including at least one course from each of the five subject areas:

Leadership Theory

PRST	5500	Foundations of Leadership	3
LDSP	5000	Current Issues and Cases in Leadership	3
ELPA	6560	Small Group Leadership	3

Research/Data Analysis

QM	5770	Computer-Based Decision Modeling	3
PRST	5600	Statistical Analysis	3

Organizational Structure and Change

PADM	5310	Leadership in Organization	3
RST	5800	Organizational Skills and Development	3

Communication

COMM	5110	Leadership and Communication	3
JOUR	5450	Public Relations Management	3
ELPA	5700	Conflict Management and Negotiation	3

Strategic Planning and Assessment

TECH	5105	Project Planning and Scheduling	3
MGMT	6040	Human Resources Management	3

Culminating Professional Project

PRST	5998	Professional Project	3
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Psychology

**Master of Arts in Psychology
Ph.D. in Clinical Psychology**

Wallace E. Dixon, Jr., Ph.D., Chair

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The Department of Psychology offers a Master of Arts degree in general psychology and an articulated MA./Ph.D. program in clinical psychology.

Master of Arts Degree in General Psychology

The general psychology degree provides students with advanced training in the field of psychology leading to careers in diverse areas of research and teaching in psychology, and prepares students for doctoral work in psychology.

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 (GRE).
2. A 3.0 overall grade point average and a 3.0 average in psychology.
3. A major in psychology.
4. At least one (1) course in statistics and one (1) laboratory course in psychology.
5. Three (3) letters of recommendation, at least two (2) from former college instructors.
6. Personal statement of goals.

Applicants with weak credentials in one (1) area (i.e., a low score in quantitative methods on the GRE), will be considered for admission if they have strong credentials in another area (i.e., a 3.5 grade point average or very

strong letters of recommendation). All materials must be received by March 1st for fall admission with financial aid. Candidates submitting application 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).

General Psychology

Requirements—All students electing general psychology must complete the following core courses:

PSYC	5210	Statistical Methods	3
PSYC	5410	Correlation and Multiple Regression	3
PSYC	56xx	Topical Seminar Series	12
PSYC	5800	Teaching in the Psychological Sciences	3
PSYC	5900	Independent Study: Research	3
PSYC	5950	Methods of Research	3
PSYC	5960	Thesis	6
		Approved Elective*	3
Total Hours General Psychology			36

The approved elective will be chosen based on the student's interests and with the guidance of the student's advisor.

Clinical Psychology

Articulated Master of Arts/Doctor of Philosophy Program
Articulated Master of Arts/Doctor of Philosophy Program

Contact Information:

e-mail - clinpsyc@etsu.edu
Web site: http://www.etsu.edu/psychology/clinical_PhD.home.html
Phone: (423) 439-4424, Main Psychology Department
Fax: (423) 439-5695
Phone: (423) 439-6660, Peggy Cantrell, Director of Clinical Training

Program Mission and Training Philosophy: The primary objective of the articulated master's/doctoral program in Clinical Psychology at East Tennessee State University is to provide training in clinical psychology emphasizing Rural Behavioral Health and Practice in the context of integrated primary health care.

The clinical psychology program is guided by the scientist/practitioner model and places a strong emphasis on research and interdisciplinary clinical training. Though diverse in respect to methods of inquiry and areas of study, the faculty is of one mind in promoting scientific inquiry as the foundation of clinical psychology.

The program is designed for full-time study only as a 5-year post-baccalaureate articulated M.A./Ph.D. program, with the fifth year being an off-campus full-time internship in keeping with APA/APPIC requirements.

All students receive a curriculum of general clinical training as well as training in the basic science of psychology. Thus, the first two years of the program are highly structured. Due to the emphasis in primary care and rural health practice as well as adherence to the generalistic model of training, the advanced coursework is more structured than some programs in clinical psychology, but students are afforded the opportunity for individualization through electives, research emphasis, and externship placements.

Full-time Faculty

Core Clinical Faculty:

Peggy Cantrell, Director of Clinical Training; William Dalton; Chris Dula; Jon Ellis; Jameson Hirsch; Jodi Polaha; Jon Webb.

Non-Core Faculty:

Ginni Blackhart; Russell Brown; Andrea Clements; Wallace Dixon, Jr., Department Chair; Michael Floyd, Family Medicine; Alan Shields; Stacey Williams; Michael Woodruff.

Admission Requirements

To be accepted into the Clinical program, students must apply for full-time study. Applicants to the M.A./Ph.D. degree program are evaluated once each year only, for admission in the fall semester; applicants for spring admission are not considered. All application information must have been received by February 15 for a candidate to be considered for admission. Students are admitted from two applicant pools, dependent upon level of preparation. All applications are considered with the expectation that the applicant will pursue the Ph.D. The two applicant pools are as follows:

1. Students holding a baccalaureate degree from a regionally accredited institution will be considered for the M.A./Ph.D. program. Students admitted to the Clinical Psychology Ph.D. program complete the requirements for an M.A. in Clinical Psychology (48 hour program of study with thesis) as part of their Ph.D. requirements.
2. Students already holding the M.A. or M.S. in psychology from a regionally accredited institution may also apply to the M.A./Ph.D. program. The master's degree must be commensurate with the MA program in Clinical Psychology at ETSU and involve the successful completion of an empirically-based thesis project. Students possessing a master's degree without an empirically based thesis will be required to complete an empirically-based thesis before being admitted to doctoral candidacy.

The following are required:

1. Completed department and university application forms;
2. A grade point average of at least 3.00 (based on a 4.00 scale) in undergraduate and/or graduate level work overall and in Psychology courses;
3. A minimum of 18 semester hours in undergraduate psychology, including courses in statistics, experimental design, personality, history and systems, and abnormal psychology. Students lacking some of these prerequisite courses, but presenting an exceptional undergraduate record, may be granted graduate admission, but they will be expected to remove all undergraduate deficiencies during their first academic year;
4. GRE scores (Verbal, Quantitative, and Written Analysis) are required for application and are taken into account in the admission process;
5. Letters of recommendation from at least three persons familiar with the applicant's background and aptitude for graduate study and future performance as a psychologist;
6. A personal statement of 500-750 words indicating the applicant's academic experiences, research interests, and career goals. Prior undergraduate research interests and involvement are weighted heavily as is an interest and commitment to working in a rural and/or primary care setting.
7. A willingness to be interviewed by members of the admission committee.

Offers and Acceptances

The Department of Psychology subscribes to the "Resolution Regarding Scholars, Fellows, Trainees, and Graduate Students" as adopted by the Council of Graduate Schools in the United States; and to the statement adopted by the Council of Graduate Departments of Psychology which indicates that, "An acceptance given or left in force after April 15 commits the student not to solicit or accept another offer. Offers made after April 15 must include the proviso that the offer is void if acceptance of a previous offer from a department accepting this resolution is in force on that date."

Master level Requirements

Required Courses	42 hours
PSYC 5030 Rural Research and Practices	3
PSYC 5100 Legal & Ethical Issues in Psychology	3
PSYC 5210 Statistical Methods	3
PSYC 5220 Personality Theories	3
PSYC 5410 Correlation and Multiple Regression	3
PSYC 5707 Adv. Behavioral Neuroscience	3
PSYC 5717 Adv. Behavioral Neuroscience Lab	1

PSYC 56X0 Seminar in Core Area of Psychology, as advised	3
PSYC 5825 Psychopathology	3
PSYC 5830 Psychological Assessment I	3
PSYC 5850 Psychological Assessment II	3
PSYC 5870 Interviewing Techniques in Clinical Psychology	3
PSYC 5910 Clinical Clerkship (2 terms)	3

Thesis

PSYC 5960 Thesis (2 terms)	6
Total Required Credits	48

Doctoral level Requirements

Major Field Core	25 hours
PMNU 5303 Psychopharmacology	3
PHYT 6102 Pathophysiology	4
PSYC 6600 Rural Case Oriented Learning & Preceptorship	3
PSYC 6870 Evidence-based Interventions	3
PSYC 7000 Doctoral Preliminary Project	3
PSYC 7100 Primary Care Psychology I	3
PSYC 7500 Cultural Anthropological Application	3

One of the following courses

PSYC 6210 Meta-Analytic Research Methods OR	
PSYC 6410 Covariate Structural Modeling OR	
PSYC 7812 Qualitative Research	

Guided Electives

.....	15
(selected with the guidance of a supervisor)	
PSYC 6210 Meta-Analytic Research Methods	3
PSYC 6410 Covariate Structural Modeling	3
PSYC 6810 Advanced Clinical Interviewing	3
PSYC 7110 Primary Care Psychology II	3
PSYC 7300 Mental Health Consultation and Administration ..	3
PSYC 7550 Community Assessment and Intervention	3
PUBH 5050 Health Care Accounting and Finance	3
PUBH 5900 Grant and Proposal Development	3
PSYC 7400 Family Systems: Research and Assessment	3
PSYC 7450 Group Systems: Process and Intervention	3
PSYC 7410 Advanced Child Psychopathology	3
PSYC 7420 Substance Abuse Psychology	3
PSYC 7900 Independent Study in Research	3

Other Requirements

.....	23
PSYC 7910 Clinical Externship	8
PSYC 7960 Dissertation	12
PSYC 7980 Pre-Doctoral Internship	3
Total Required Credits	63

All students must be competent in the diverse core areas of psychology as specified by the American Psychological Association. Core competence will be demonstrated by completion of coursework covering core areas as well as passing the written comprehensive exam. Core areas include: Biological Aspect of Behavior, Cognitive and Affective Aspects of Behavior, Social Aspects of Behavior, History and Systems, Psychological Measurement, Research Methods, Data Analysis, and Human Development.

Students must also demonstrate proficiency in substantive areas representing the current body of knowledge in the field of clinical psychology in Assessment and Diagnosis, Psychological Interventions, Theoretical Models of Personality and Treatment, and Behavioral Health.

Transfer of Credit

Students with graduate credit earned at another institution, upon matriculation at ETSU, may petition to have these credits applied toward their degree requirements at ETSU. While such credits are not automatically transferred and must be approved by the Director of Clinical Training and the School of Graduate Studies, a maximum of 9 semester hours earned elsewhere could be applied. For students who have attained a master's degree in Psychology, a maximum of 48 semester hours may be applied toward the M.A./Ph.D. degree requirements.

Waiving Core Course Requirements

Students may petition to waive specific courses through examination. The designated course instructor, along with the DCT, will review petitions.

Students must present evidence of completion of a similar course to that in the petition, transcript evidence, and a course syllabus constitute the required documentation. Upon approval to sit for a waiver examination, students will be provided an opportunity for examination by the designated course instructor, and the course instructor will determine pass or failure of the examination. If the examination is passed, the instructor will recommend a course waiver to the DCT. The total number of degree hours will not be reduced, but an alternate course may then be substituted for degree credit.

Students who enter the Ph.D. program after completing graduate level courses at another university may wish to request waivers of required core courses. Requests for waivers should be made during the student's first semester of academic study, but may be considered later. Comparability of the prior coursework to the core courses in the department is the primary criteria for granting a waiver. Students should first consult with the current instructor of the course they wish to waive and provide him or her with documentation of the completed course that will serve as basis for the waiver. Normally, this documentation would include copies of:

1. the transcript (unofficial is acceptable) showing a final grade of B or higher in the completed course;
2. the completed course syllabus, text, and reading lists;
3. tests, notes, projects, etc., from the completed course (if available).

Although the instructor may offer an informal opinion on the comparability of the completed course, the instructor does not make the final decision on waiving core courses alone. If the student wishes to pursue the waiver, the student should then submit a formal letter to the Director of Clinical Training requesting the waiver. The written request should be accompanied by the documentation of the course that serves as the basis for the waiver. Requests for waivers of multiple core courses should be submitted with separate cover letters.

The Director of Clinical Training will submit the waiver request and documentation to the Core Curriculum Committee, which consists of the Director of Clinical Training and core course instructors within the department. This committee makes the final decision on the request for a waiver of a core course. The Director will then notify the student of the committee's decision and also place a letter of notification in the student's file.

Matriculation Requirements

Students are referred to the ETSU Graduate Catalog for School of Graduate Studies academic requirements. Specific departmental requirements also apply. All students in the M.A./Ph.D. program are expected to be enrolled as full-time students and to devote themselves full time to their graduate pursuits during their enrollment in degree-related activities. Students are expected to be active in research collaboratively with members of the department faculty each semester they are enrolled. In addition to coursework and research, students are required to participate in clinic and field experiences commensurate with their level of training and type of graduate assistantship.

Student Handbook for the ETSU Clinical Psychology Graduate Program

Matriculating students are responsible for adherence to procedures and policies outlined in this catalog as well as those contained in the Student Handbook for the ETSU Clinical Psychology Graduate Program. Refer to that document for critical departmental guidelines and policies concerning Clinical and Professional Learning Experiences, Documentation of Clinical Experience and Supervision, Annual Student Evaluations, additional Ph.D. requirements, Thesis and Dissertation Guidelines, Comprehensive Examination, Oral Defenses, Academic Performance requirements, Academic Probation, Dismissal, and Appeal, Clinic Responsibilities, Graduate Assistantships, and Professional Development.

Public Administration

**Master of Public Administration
Master of City Management**

Dr. J. David Briley, Interim Director

Associate Professor of Political Science
219 Rogers-Stout Hall
Box 70651
(423) 439-6697
e-mail: briley@etsu.edu

Faculty:

David Briley; Lon Felker; Michael Marcioni; Paul Trogen.

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 non-profit 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, non-profit 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.

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
PMGT	5120	Public Personnel Management	3
PMGT	5140	Public Organization Theory	3
PMGT	5160	Public Budgeting and Finance	3
PMGT	5180	Public Policy Analysis	3
URBS	5637	Local and Regional Planning	3
Total Core Hours			18

Concentration

Total Concentration Credit Hours (See below) 12

Capstone Courses*

PMGT	5800	Public Management Internship or	
PMGT	5820	Public Management Consultanship	3
PMGT	5840	Public Management Report	3
Total Capstone Hours			6

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

Total Credit Hours Required for Degree 36

City Management Concentration

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
PMGT 5500	City Management Profession	3
PMGT 5520	Urban Government	3
Guided Elective (with permission of Director)		3
Total Concentration Hours		12

Students selecting this concentration will receive the Master of City Management (M.C.M.) degree.

Not-For-Profit Administration Concentration

This concentration is designed for students who wish to work in not-for-profit organizations.

Required Courses

PMGT 5300	Not-for-Profit Resource Development	3
ELPA 6955	Grant and Proposal Development	3
PMGT 5750	Public Sector Financial Management	3
Total Required Hours		9

One Guided Elective from the following courses:

ACCT 5717	Not-for-Profit Accounting	3
MKTG 5010	Essentials of Marketing	3
PMGT 5240	Seminar in Public Management	3
PMGT 5955	Topics in Public Management	3
PUBR 5320	Public Relations Case Studies	3
SOCI 5444	Applied Data Analysis for the Social Sciences	3
Total Elective Hours		3

Students in the Not-for-Profit Concentration may take SOCI 5320 in place of PMGT 5180 in the M.P.A. core. Students selecting this concentration will receive the Master of Public Administration (M.P.A.) degree.

Planning and Development Concentration

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
URBS 5107	Urban Geography and Planning	3
URBS 5347	Economic Development and Planning	3
Guided Elective (with permission of Director)		3
Total Concentration Hours		12

Students selecting this concentration will receive the Master of Public Administration (M.P.A.) degree.

Public Financial Management Concentration

This concentration is intended for students interested in public budgeting and public finance.

Required Courses

ACCT 5717	Not-for-profit Entity Accounting	3
PMGT 5280	Seminar in Public Risk Management	3
PMGT 5750	Public Sector Financial Management	3
Guided Elective (with permission of Director)		3
Total Concentration Hours		12

Students selecting this concentration will receive the Master of Public Administration (M.P.A.) degree.

Public Health

(For more information on the degrees and concentrations listed below, see the respective departments)

Master of Public Health

Brian Martin, Ph.D., M.B.A., M.P.H. Coordinator

College of Public Health
42 Lamb Hall
Box 70264
(423) 439-4429
e-mail: martinb@etsu.edu

Master of Public Health Concentrations

The Master of Public Health program offers a competency-based approach to professional preparation for public health practice in any of five areas – Biostatistics, Community Health, Environmental Health, Epidemiology, and Public Health Administration. Each concentration provides students with the requisite skills to work in the respective area.

Many courses are available online through distance education technology. Fully online concentrations of study exist for Epidemiology and Public Health Administration. Others are being planned. Please contact the graduate coordinator for more information.

Biostatistics is a quantitative field in which students learn how to collect, manage, and analyze public health data. This curriculum provides instruction in basic analytical methods and the use of statistical software. See Department of Biostatistics and Epidemiology

Community Health affords the student the opportunity to learn how to interact with communities for the purpose of health education and program evaluations; and the importance of establishing collaborative organizational and community partnerships. See Department of Community Health

*Environmental Health** prepares specialists who understand the interrelationships between chemical, biological, and physical factors in the environment, and social and organizational factors in the human community. Students will become proficient in the assessment of community environmental health needs by collecting, analyzing, and reporting appropriate data, and will develop expertise in investigating, monitoring, and managing environmental problems that may have an impact on the public's health. *Offered through the Department of Environmental Health.

Epidemiology is the "basic science of public health," and as such epidemiologists are health professionals who study disease, illness, and injuries and attempt to determine: who becomes ill; why certain people are more likely to become ill; and how to prevent the spread of illness. See Department of Biostatistics and Epidemiology

Public Health Administration is a multidisciplinary field that focuses on the accessibility, financing, and organization of health care services and the development and implementation of public health policy. See Department of Health Services Administration

Program Admission Requirements

(Application deadline: March 1)

Admission to the graduate program in public health is based upon scholarship, letters of recommendation, and evidence of potential mastery including:

1. A minimum undergraduate grade point average (GPA) of 2.75;
2. Satisfactory scores on the Graduate Record Examination (GRE)*;
3. A minimum of two years public health work experience is preferred though not required. Students without experience are required to complete PUBH 5850, unless taking the environmental health concentration.
4. See Environmental Health department listing for additional admission requirements for that concentration.

* GRE scores are waived for applicants in the Tennessee Public Health Workforce Development Consortium who have successfully completed an approved graduate certificate.

For additional information, please contact the Office of the Graduate Coordinator or the respective graduate program housing your concentration of interest. You may also view the graduate catalog online at the Graduate Studies web site, www.etsu.edu/gradstud.

Applications for study in the M.P.H. program should be sent to the School of Graduate Studies. These may be obtained online at the Graduate Studies web site shown above.

Note: Applications are accepted once a year only, for entry into the fall semester. Completed applications must be received in the School of Graduate Studies by March 1 for consideration.

Doctor of Public Health

Robert Pack, Ph.D., M.P.H., Dr.P.H. Coordinator

College of Public Health
 Box 70623
 423-439-4540
 e-mail: packr@etsu.edu

Doctor of Public Health Concentration

The Doctor of Public Health (Dr.P.H.) program offers an advanced professional degree designed for those who wish to pursue or further their career in public health practice. It prepares practitioners with competence in administration, advocacy, problem solving, research, and communication. Graduates are qualified to serve in a variety of leadership capacities at state, national, and international levels, enhancing the public's health in both rural and urban settings. Two areas of concentration currently exist within the degree - community health and epidemiology. For more information on admission and degree requirements see the Dr.P.H. entries under the Community Health Department or Biostatistics and Epidemiology Department, respectively.

Program Admission Requirements
 (Admission deadline: March 1)

Admission to the Doctor of Public Health program is competitive and based on scholarship, letters of recommendation, and evidence of potential success, including:

1. Evidence of successful completion of an M.P.H. or equivalent degree in a related field from a regionally accredited institution of higher learning in the United States.
2. Application form and accompanying fee.
3. One official transcript of all previous undergraduate and graduate work (except previous coursework completed at ETSU).
4. A personal essay that includes a written statement of career and educational goals, professional experience, and prospective area of interest for the dissertation.
5. Official scores from the Graduate Record Examination (GRE) taken within the past 5 years (except for those with a doctoral degree from a regionally accredited institution within the United States). Preferred scores are at or above the 50th percentile for verbal and quantitative sections.
6. Four letters of recommendation from individuals who can attest to the applicant's academic, professional, or personal achievement, competence, ethics, and potential.

Note: Applications are accepted once a year only, for entry into the fall semester. Completed applications must be received in the School of Graduate Studies by March 1 for consideration.

Public Health Administration Concentration

**See Health Services Administration*

Reading

Master of Arts in Reading

E. Jane Melendez, Ph.D., Graduate Coordinator, Reading Education

406 Warf-Pickel Hall
 Box 70684
 (423) 439-7910
 e-mail: melendez@etsu.edu

If Coordinator is unavailable, contact Dr. Rhona Hurwitz, Department Chair.

Joseph Sobol, Ph.D., Graduate Coordinator, Storytelling

410 Warf-Pickel Hall
 Box 70684
 (423) 439-7683
 e-mail: sobol@etsu.edu

**Department of Curriculum and Instruction
 in the College of Education in the College of Education**

Rhona Hurwitz, Ed.D., Chair

401A Warf-Pickel Hall
 Box 70684
 (423) 439-7595
 e-mail: cummingr@etsu.edu

Faculty:

Martha Collins; Ed Dwyer; Rosalind Gann; Jane Melendez; Leslie Perry; Elizabeth Ralston; Delanna Reed; Joseph Sobol.

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. Candidates are prepared to assume leadership roles in reading education by serving as special reading teachers, clinicians, diagnosticians, program coordinators, reading specialists, and reading supervisors.

The graduate program meets standards of excellence for reading programs of the International Reading Association. Graduate program faculty and candidates work extensively in area schools to provide active practicum experiences.

The M.A. in Reading Education is not an initial licensure program. Persons seeking an initial endorsement to teach in Tennessee should enter one of the initial licensure programs.

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 applicant for admission must meet all general university requirements for admission to the School of Graduate Studies and departmental criteria as published elsewhere.

Degree Requirements—Graduate majors in reading education 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.

Course Requirements

Core Courses

EDFN	5950	Methods of Research	3
READ	5190	Linguistics of Reading	3
READ	5241	Practicum	3
Total Core Hours			9

Concentration Courses

READ	5027	Diagnostic and Remedial Procedures	3
			in Reading
READ	5120	Teaching Reading	3
READ	5170	Materials for Reading and Language Arts	3
READ	5210	Psychology of Reading	3
READ	5231	Advanced Diagnostic Procedures	3
Total Concentration Hours			15

Thesis Option

READ	5960	Thesis	3-6
Guided Elective			0-3
Total Hours Required (Thesis Option)			30

Non-Thesis Option

Guided Electives			12
Total Hours Required (Non-Thesis Option)			36

Tennessee Reading Specialist PreK - 12—The East Tennessee State University Clemmer 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 (3) 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 M.A. degree and the requirements outlined by the Tennessee Standards for Licensure as Reading Specialist, PreK-12.

**Rural Health Graduate Certificate
(Community Health)**

James E. Florence, Dr.P.H., M.P.H., C.H.E.S., Associate Professor and Interim Chair, Department of Community Health
College of Public Health
318 Lamb Hall
Box 70674
(423) 439-4332
e-mail: florence@etsu.edu

or
Dr. Mary Ann Littleton, Associate Professor
311 Lamb Hall
(423) 439-5247
email: littleto@etsu.edu

The Rural Health Graduate Certificate Program is a 15-credit-hour program designed to provide students with knowledge and skills needed to assess, plan, implement, and evaluate rural health programs and services.

Admission to the Program

The criteria for admission to the Rural Health 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:

1. an application;
2. three (3) letters of recommendation; and
3. official transcripts from all colleges attended.

All applications will be evaluated by an admission committee.

Core Requirements

PUBH	5400	Epidemiology I	3
PUBH	5200	Social and Behavioral Foundations	3
Total Core Hours			6

Concentration Requirements

PUBH	5125	Rural Health Research and Practice	3
PUBH	5135	Rural Health Projects	3
PUBH	5377	Health Communication	3
Total Concentration Hours			9
Total Required Coursework Hours			15

**School Leadership
(Educational Leadership)**

**See Educational Leadership*

**Secondary Education
Master of Education in Secondary Education**

Jean Hamm, Ed.D., Graduate Coordinator
417 Warf-Pickel Hall
Box 70684
(423) 439-7595
e-mail: hamm@etsu.edu

Faculty:

H. Lee Daniels; Rosalind Gann; Aimee Govett; Jean Hamm; Rhona Hurwitz; 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 Theatre.

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 Master of Education in Secondary Education degree requires a minimum of 37 credit-hours to complete. 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 completing twelve (12) credit-hours of professional development courses, 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. Obtain a minimum of 2,400 points based on the following formula:
 - i. The sum of the GRE aptitude scores (V+Q+A);
 - ii. GPA x 500; and
 - iii. The total of (i) and (ii).

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.

Course Requirements

(Except Classroom Technology Concentration)

I. Professional Development Courses

EDFN	5010	Interdisciplinary Seminar	1
EDFN	5050	Social and Political Influences on Schools	3
EDFN	5950	Methods of Research	3
CUAI	5199	Teaching in a Diverse Society	3
CUAI	5200	Middle School/Junior High Curriculum	3
			or
CUAI	5220	Secondary School Curriculum	3
MEDA	5400	Integrating Technology in Teaching and Learning 3	

Three (3) additional semester credits from courses listed below:

CUAI	5210	Curriculum Development	3
MEDA	5700	Instructional Role of Educational	3
		Media and Educational Technology	
CUAI	5910	Assessment Techniques in the Classroom	3
EDFN	5000	History and Philosophy of Education	3
MEDA	5540	Principles of Instructional Design and Production	3
		Total Hours Professional Development	19

II. Content Specialization

15 credits from areas normally taught in the secondary schools (grades 7-12)

Total Hours Specialization **15**

III. Content Elective

Chosen with prior approval from the student's advisory chair may be from content area.

Total Hours Electives **3**

Total Hours Required for Degree **37**

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 nineteen (19) credit-hours of professional development courses (*see below*); Twelve (12) credit-hours in educational technology courses; and six (6) credit-hours of electives. The six (6) credit-hours from electives may be completed from educational technology courses or in one of the disciplines normally taught at the secondary level.

I. Professional Development Courses

EDFN	5010	Interdisciplinary Seminar	1
EDFN	5050	Social and Political Influences on Schools	3
EDFN	5950	Methods of Research	3
CUAI	5199	Teaching in a Diverse Society	3
CUAI	5200	Middle School/Junior High Curriculum	3
		or	
CUAI	5220	Secondary School Curriculum	
MEDA	5400	Integrating technology in Teaching and Learning	3
		Three (3) additional semester credits from courses listed below:	
MEDA	5700	Instructional Role of Educational	3
		Media and Educational Technology	
MEDA	5540	Principles of Instructional Design	3
		and Production	
		Total Hours Professional Development	19

II. Content Specialization

MEDA	5850	Organizing and Managing Content on	3
		the Internet	
MEDA	5957	Topics in Media	3
		Six (6) additional hours of educational technology	6
		Total Hours Specialization	12

III. Content Elective

Content electives may be selected from media technology or from the disciplines normally taught at the secondary level.

Total Hours Electives **6**

Total Hours Required for Degree **37**

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

Master of Social Work

David P. Cecil, Ph.D., L.M.S.W., Program Director

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Program Purpose

The purpose of the ETSU MSW program is to prepare students for autonomous clinical practice. The goals, objectives, and course content were developed with this purpose in mind. The MSW program learning goals include the following:

1. To prepare students with the knowledge, values, and skills of clinical practice;
2. To prepare students to engage in competent and responsible clinical practice within public and private agencies;
3. To prepare students to develop and use ethical research in the advancement and enhancement of social work practice.

The Master of Social Work program is a fully accredited program by 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 (2)-year master's program. The first-year foundation curriculum focuses on preparing students with a generalist social work perspective. The second-year curriculum focuses on preparing students for autonomous clinical practice.

Applicants who have attained a bachelor of social work (B.S.W.), within the last five (5) years, from a program accredited by the CSWE may apply for advanced standing, which can be completed in approximately twelve (12) months (for full-time students).

Full-time and limited part-time enrollment is available.

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 course content in:
 - a. English composition and literature;
 - b. Math and Natural Sciences;
 - c. Humanities;
 - d. Social and/or Behavioral Sciences courses taken from a combination of Psychology, Sociology, Anthropology, Economics, History, Political Science, and Government;
4. Three (3) letters of reference that address the applicant's abilities and potential for graduate education and professional social work practice;
5. A résumé that includes personal data, educational experience, work/volunteer experience, special skills, attributes, and professional affiliations and recognition; and
6. An autobiographic statement.
7. The deadline for applications is March 1, 2008.
 (No academic credit will be granted for work experience.)

In addition to the above requirements, students graduating from a CSWE accredited Bachelor of Social Work program within the last five (5) years, may apply for Advanced Standing status.

Additional Requirements

Additionally, all applicants will be screened for evidence of the following intellectual and personal qualities compatible with social work roles and functions:

1. Sound interpersonal skills that would support respectful relationships and affirmation of people from diverse backgrounds.
2. Strong motivation for a career in social work and suitability for the profession.
3. 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.
4. Critical thinking skills and skills in oral and written communication consistent with graduate-level students.

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 37 credits 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 grade of “B” in all core courses and field coursework. Satisfactory completion of the foundation coursework is required before advancing to second-year coursework and internship. 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 into the GPA.
- Satisfactory completion of the program’s culminating experience, 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.
- The MSW program must be completed in 4 years.

Traditional-Entry Program

First-Year Foundation Curriculum

Fall Semester

SOWK 5101	Multicultural Practice	3
SOWK 5102	Human Behavior in the Social Environment I	3
SOWK 5103	Social Work Practice Foundations I	3
SOWK 5104	Social Welfare Policy and Programs	3
SOWK 5106	Field Practicum I	4
Total Semester Hours		16

Spring Semester

SOWK 5202	Human Behavior in the Social Environment II	3
SOWK 5203	Social Work Practice Foundations II	3
SOWK 5205	Social Work Research I	3
SOWK 5430	Psychopathology	3
SOWK 5206	Field Practicum II	4
Total Semester Hours		16
Total Hours (First-Year)		32

Advanced Standing Only

Summer Coursework

SOWK 5208	Advanced Standing Bridge Course	3
SOWK 5430	Psychopathology	3
Total Hours (Summer Courses)		6

Traditional-Entry and Advanced Standing

Second-Year Curriculum

Fall Semester

SOWK 5303	Advanced Practice/Individuals	3
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SOWK 5305	Social Work Research II	3
SOWK 5323	Advanced Practice/Groups	3
SOWK 5xxx	Elective	3
SOWK 5306	Advanced Field Practicum I	4
Total Semester Hours		16

Spring Semester

SOWK 5313	Advanced Practice/Families	3
SOWK 5403	Admin. Practice in Human Ser. Org.	3
SOWK 5405	Social Work Research III	3
SOWK 5406	Advanced Field Practicum II	6
Total Semester Hours		15
Total Hours (Second-Year)		31
Total Hours (Advanced Standing)		37

Sociology and Anthropology

Master of Arts in Sociology

Leslie McCallister, Ph.D., Graduate Coordinator

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Faculty:

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The Department of Sociology and Anthropology offers two (2) Master of Arts 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 the department’s graduate coordinator.

Program Admission Requirements

1. Submit scores on the verbal, quantitative, and analytical sections of the Graduate Record Examination (GRE). Scores of at least 400 on each section (verbal and quantitative) and a score of 4 or higher on the analytical section preferred.
2. A 3.0 overall undergraduate grade point average on a 4.0 scale.
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 (3) courses in sociology may be admitted under the condition that they enroll in and complete, with at least a grade of “B”, two (2) upper-level undergraduate courses.
4. Three (3) letters of recommendation.

Thesis Option Requirements

All students selecting the thesis option must complete a minimum of 30 semester credits, 21 of which must be in sociology.

SOCI 5110	Contemporary Social Theory	3
SOCI 5210	Sociological Research	3
SOCI 5960	Thesis	3-6
Electives	.....	18-21
Total Hours—Thesis Option		30

Students may take no more than nine (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 (1) and three (3) “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 examination is required to successfully complete the degree program.

Non-Thesis Option Requirements

All students selecting the non-thesis option must complete a minimum of 36 semester credits, 27 of which must be in sociology.

SOCI 5110	Contemporary Social Theory	3
SOCI 5210	Sociological Research	3
SOAA 5820	Skills in Applied Sociology and Anthropology	3
SOCI 5320	Program Evaluation	3
SOCI 5850	Supervised Internship	6
SOCI 5870	Internship Placement Report	3

and one (1) of the following

SOCI 5627	Ethnographic Fieldwork Techniques	3
	or	
SOCI 5444	Applied Data Analysis for Social Sciences	3
Electives	.....	12

Total Hours—Non-Thesis Option 36

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 (1) to three (3) “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 (6) credits by enrolling in SOCI 5850-Supervised Internship. 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 (3)-credits by taking SOCI 5870-Internship Placement Report. 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 examination is required to successfully complete the degree program.

Special Education

Master of Education in Special Education

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Patricia E. Robertson, Ed.D., Chair

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Faculty:

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The area of Special Education (SPED) offers a Master of Education (M.Ed.) degree for the advanced preparation of personnel to serve children, youth, and adults who have disabilities. The program offers three (3) 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 comprehensive special education.

Early Childhood Special Education Concentration

This area of emphasis is designed to prepare individuals to teach young children (birth - 5 years) with disabilities and to work effectively with their families. This concentration prepares candidates for Tennessee licensure in early childhood special education.

Advanced Practitioner Concentration

This area of emphasis is designed to prepare individuals who are not seeking initial special education licensure, but who are interested in obtaining an advanced degree in special education. Coursework in this concentration 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 PRAXIS I with a passing score.
3. Minimum undergraduate GPA of 3.0 on a 4.0 scale.
4. Non-teaching 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. Admission to the College of Education must be completed two semesters prior to student teaching. Students who have a Tennessee state teaching license and 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
SPED 5545	Incorporating Assistive Technology	3
	Into the Curriculum	
SPED 5487	Collaboration with Families, Agencies,	3
	and Schools	
EDFN 5950	Research Methods	3

EDFN 5010 Seminar in Education 1

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
SPED	5750	Transition to Adult Life and the World of Work	3
SPED	5757	Curriculum-Based Assessment	3
SPED	5497	Curriculum in Special Education	3
SPED	5825	Curriculum in Preclinical Experience	3
SPED	5365	Integrating Functional Skills into the Curriculum	3
SPED	5725	Management Strategies for Severe Behaviors	3
SPED	5410	Preclinical Experience: Behavior Mgmt	1
SPED	5850	Student Teaching in Special Education	6

Total Hours for the M.Ed. (minimum)..... 39 Credit

Hours

Early Childhood Special Education Concentration

SPED	5347	Medical Aspects of Individuals with Disabilities	3
SPED	5010	Introduction to Young Special Needs Children and their Families	3
SPED	5030	Intervention with Developmentally Delayed Preschoolers	4
SPED	5040	Intervention with Developmentally Delayed Infants and Toddlers	4
SPED	5050	Assessment of Young Children with Disabilities	3
SPED	5060	Professional Seminar in Early Intervention	1
ECED	5331	Infancy	3
HDAL	5210	Advanced Child Development	3
SPED	5850	Student Teaching in Special Education	6

Total Hours for the M.Ed. (minimum) 43

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
SPED	5560	Advanced Practicum	3

Total Hours for the M.Ed. (minimum) 37

Additional Licensure Requirements

Completion of the above program 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 licensure but desire to obtain the license must complete the courses in BOTH sections 1 & 2.

Section 1

SPED	2300	Exceptional Learners	or	
SPED	5500	History, Issues, and Trends in Educating Exceptional Learners	3	
EDFN	2300	Foundations of Teaching	3	
HDAL	3310	Educational Psychology	3	
READ	3100	Foundations of Reading	3	
CUAI	3430	Methods in Teaching Elementary Mathematics	3	

Those in the special education concentration who have a professional education license in an area other than special education must complete only the courses in section 2.

Section 2

SPED	4477/5477	Special Education Assessment	3
SPED	3300	Instructional Methodology in Spec. Ed	3
SPED	3400	Behavior Management for Individuals with Disabilities	3
SPED	3350	Medical Aspects in Special Education	3

Speech-Language Pathology

Master of Science

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The program in Speech-Language Pathology is selective and admits students only in the fall semester. 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 (6) 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 3.0 in the last two (2) years;
3. Prerequisite coursework* (Conditional admission may be considered for students with a bachelor's degree who have not completed the prerequisite coursework.)
4. Submission of Quantitative, Qualitative, and Analytical writing score of the GRE.

In addition to submitting an application and an official transcript of all academic work previously completed, applicants must submit three (3) letters of recommendation which evaluate the student's academic abilities, communication skills, and interpersonal capabilities. Graduates of ETSU are not required to submit these letters if requesting admission prior to or immediately upon finishing the Communicative Disorders undergraduate minor.

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

1. A minimum of six (6) credit-hours in the biological/physical sciences.
2. A minimum of three (3) credit-hours in mathematics.
3. A minimum of six (6) credit-hours in the behavioral and/or social sciences that include study that pertains to understanding normal/abnormal human behavior, development across the lifespan, social interaction, and issues of culturally diverse populations.
4. A least fifteen (15) credit-hours in basic human communication processes with at least two (2) 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 twenty-five (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-Language 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 29 credits of required concentration courses and 10 credits of electives. Elective choices allow the student to emphasize child or adult populations with communicative disabilities. The electives may be in either concentration area, chosen in consultation with an advisor.

Thesis and Non-Thesis Options

Enrolled students may choose 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 (2) semesters with written literature review to substantiate the current clinical and theoretical bases of their case. The case preparation and its oral presentation, representing the creative component of this option, involve the clinical application of the scientific method to the evaluation and treatment of a client.

Clinical Requirements

Each degree candidate must complete a minimum of nine (9) credits of clinical practicum. The student must be enrolled in clinical practicum during each semester enrolled and must have clinical experiences at three (3) 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 completing 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-Language 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. Students 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, the student 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 (2) 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 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.

Required Coursework 29 Credit Hours

CDIS 5010	Neurological Bases of CDIS	3
CDIS 5015	Language Disorders in Children	3
CDIS 5025	Clinical Phonology	3

CDIS 5030	Fluency Disorders	3
CDIS 5035	Motor Speech Disorders	3
CDIS 5040	Adult Language Disorders	3
CDIS 5045	Dysphagia	3
CDIS 5070	Voice Disorders	3
CDIS 5275	Dysphagia Laboratory	1
CDIS 5285	Voice Laboratory	1
CDIS 5400	Research methods for CDIS	3

Clinical Practicum 9 Credit Hours

CDIS 5510	Audiology Clinic for SLP	1
CDIS 5620	SLP Clinic: Child Eval./Treat.	3
CDIS 5640	SLP Clinic: Adult Eval./Treat.	3
CDIS 5670	SLP Clinic: Advanced (Repeatable) ..	3
CDIS 5690	Externship: SLP	6 - 9

Electives 10 Credit Hours

CDIS 5200	Language Disorders of School-Aged Children .	3
CDIS 5215	Clinical Audiology for SLP	3
CDIS 5210	Comm. Prob. of Aging	3
CDIS 5240	Pediatric Organic Dis	3
CDIS 5260	Intervention Issues	3
CDIS 5270	Augmentative Comm.	3
CDIS 5295	Counseling in Comm. Disorders	3
CDIS 5290	Adv. Adult Neuro. Cog-Com Dis	3
CDIS 5960	Thesis	3 - 6
CDIS 6300	Rehabilitative Audiology for Children	3

Total Hours Required (minimum) 48 Credit Hours

**Storytelling Concentration
(Reading)**

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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.

Course Requirements

Core Courses

EDFN 5950	Methods of Research	3
READ 5190	Linguistics of Reading/Storytelling	3
READ 5241	Practicum	3
Total Core Hours		9

Concentration Coursework

READ 5147	Basic Storytelling	3
READ 5890	Historical and Psychological	3
	Foundations of Storytelling	
READ 5230	Advanced Storytelling	3
Total Concentration Hours		9

Thesis Option

READ 5960	Thesis	3-6
Guided Electives		6-9

Total Hours Required (Thesis) 30

Non-Thesis Option

READ 5961 Non-Thesis Capstone Project	3
Guided Electives	15
Total Hours Required (Non-Thesis)	36

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 comprehensive examinations.

Teaching, Master of Arts

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Tammy Barnes, Ed.D., Program Co-Coordinator

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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-6 licensure, Middle Grades program that covers 4-8 licensure, or the Secondary M.A.T. program that covers 7-12 licensure in Biology, Chemistry, Earth Science, Economics, English, French, Geography, German, Government, History, Mathematics, Physics, Spanish, and Speech Communication. We also offer licensure at the 5-12 level Family and Consumer Sciences and Technology Engineering Education licensure as well as licensure at the K-12 level in Physical Education, Art, Music (Vocal General or Instrumental), Theatre, and Health.

Program Admission Requirements

Admission to the M.A.T. program is a two-step process: students must be admitted to the M.A.T. 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 and three letters of reference

The final selection of M.A.T. students is based on evaluation of the completed application package and a personal interview. The decision on admission to the M.A.T. Program occurs at this interview.

Upon admission to the M.A.T. 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 M.A.T. 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 M.A.T. 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 2.75 on a 4.0 scale.
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 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)

Students accepted into the *Elementary* program will have a bachelor's degree and must pass the content PRAXIS II for admission to teacher education. Those accepted into the *Middle Grades* program should have a minimum of 15 content hours in each of two content areas taught at the middle grades and will pass the middle grades content area test(s) before admission to teacher education. Those entering the *Secondary* program should have a major in the intended teaching area and will pass the PRAXIS II content test(s) before admission to teacher education. All students must have appropriate ACT/SAT/PRAXIS I scores for admission to teacher education.

(4) Students must pass a background check.

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.

Formal admission to Teacher Education occurs after successful completion of EDFN 5411.

All applicants must take and pass all required licensure tests before student teaching.

**Master of Arts in Teaching Program:
 Core Requirements for all concentrations**

Common Core	16 credits
EDFN 5420 Building a Community of Learners: Schools and Schooling	4 (Includes 30 hours of field experience)
MEDA 5400 Integrating Technology in Teaching and Learning	3
SPED 5500 History/Issues/Trends in Educating Exceptional Learners	3
EDFN 5950 Research Methods	3
One from the following:	3 credits
HDAL 5200 Advanced Educational Psychology or	
HDAL 5220 Adolescent Psychology or	
PSYC 5860 Theories of Learning (Middle and Secondary concentrations only)	

Master of Arts in Teaching Program: Elementary

Curriculum and Methodology	17 credits
CUIA 5440 Elementary School Curriculum and Assessment	3
READ 5441 Reading Communication Block I	6
READ 5442 Reading/Communications Clinical Field Experience	1
CUIA 5443 Reasoning: Block II Mathematics, Science, Social Studies	6
CUIA 5444 Reasoning Block II Clinical Field Experience II ...	1
Professional Semester	12 credits
CUIA 5580 Enhanced Student Teaching	9
CUIA 5400 Seminar Classroom Management	3
Total Credits	45

Middle Grades Concentration

Curriculum and Methodology	16 credits
CUIA 5450 Middle Grades Curriculum and Assessment	3
READ 5437 Reading Instruction in the Middle and Secondary School Content Areas	3

READ	5452	Guided MS clinical Field Experience I	1
READ	5453	Advanced Middle Grades English/ Language Arts	2
CUAI	5454	Middle Grades Mathematics	2
CUAI	5455	Middle Grades Social Studies	2
SCED	5456	Middle Grades Science	2
CUAI	5458	Guided Middle Grades Field Experience	1
Professional Semester			12 credits
CUAI	5580	Enhanced Student Teaching	9
CUAI	5400	Seminar Classroom Management	3
Total Credits			44

Secondary Education Concentration

Curriculum and Methodology				14 credits
CUAI	5430	Secondary School Curriculum and Assessment	3	
READ	5437	Reading in the Middle and Curriculum and Methodology: Secondary School Content Areas	3	
CUAI	5438	Secondary Field Experience II	1	
One discipline-specific content methods course that must be taken with clinical field experience				3
BIOL	4417/5417	Teaching Biology in High School		
ENGL	4417/5417	Teaching English in Secondary Schools		
CUAI	4787	Methods of Teaching Vocational Tech. Education		
GEOG	4417/5417	Teaching Geography/Earth Science		
HIST	4417/5417	Methods of Teaching History		
LANG	4417/5417	Teaching Foreign Languages		
MATH	4417/5417	Teaching Secondary Mathematics		
MUSC	4510	Music in Elementary School		
MUSC	4520	Music in Secondary School		
PUBH	3130	Principles and Methods – Health Education		
SCED	4417/5417	Teaching Science in Secondary Schools		
Elective, advisor approved, for disciplines with one required content methods course				3
Two discipline-specific content methods courses that must be Taken with clinical field experience for Physical Education, Family and Consumer Science, Art, and Music				6
Professional Semester			12 credits	
CUAI	5580	Enhanced Student Teaching	9	
CUAI	5400	Seminar Classroom Management	3	
Total Credits			42	

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 Teaching License and wishes to add an endorsement in another teaching area should contact the certification analyst, room 321, Warf-Pickel Hall.

All applicants for a teaching license in Tennessee must submit satisfactory scores on the PRAXIS II. Applicants should request that a copy of their test scores be sent to:

East Tennessee State University
Recipient Code #1198

Request current information about Tennessee test requirements at the Office of Education Student Services, Room 321, Warf-Pickel Hall.

*IMPORTANT NOTICE TO ETSU STUDENTS SEEKING SCHOOL LICENSURE: Tennessee Teaching or other School Licensure/Endorsement

requires an application made directly to the Certification Officer, Angela Murray, in the Clemmer College of Education. Application should not be made until all relevant coursework, degrees, and qualifying test scores are completed. A complete set of transcripts from all colleges or universities attended will be required for the application. Students must have their test results reported to East Tennessee State University, Recipient Code 1198, by the testing company. Every effort will be made to send students up to date application forms and instruction near the end of their final semester. However, if you do not receive this information by the end of your program, you will need to contact:

Ms. Murray, phone: 423-439-7562, email: murray@etsu.edu, office: room 323C Warf-Pickel Hall.

**Teaching English as a Second Language Certificate
(English)**

Theresa McGarry, Ph.D., Coordinator

410 Burleson Hall
Box 70683
(423) 439-6680
email: mcgarry@etsu.edu

Judith Slagle, Ph.D., Chair

103B Burleson Hall
Box 70683
(423) 439-4339
email: slagle@etsu.edu

Faculty:

Yousif Elhindi; Theresa McGarry; Martha Michieka.

The department of English offers a graduate certificate in TESL that provides knowledge and skills necessary to teach English as a second language in a variety of settings beyond the public schools. The course enables students to understand the process of learning a second language, design and implement English courses that meet the needs of English learners in adult education programs and institutes of higher learning, develop a view of themselves as professionals in the specialized field of teaching English as a second language, and understand the basis of continuing professional development in this field.

Program Admission Requirements

A student applying to the TESL certificate program should have the following:

1. a bachelor’s degree with at least 3.0 GPA (on a 4.0 scale)
2. two years of coursework or basic proficiency in a foreign language
3. two letters of recommendation
4. satisfactory scores on the language section of the Graduate Record Examination (GRE) aptitude test.

A student who wishes to pursue an M.A. in addition to the certificate also needs to meet the requirements for admission to that program; admission into the certificate program does not entail admission into the M.A. program, even though many of the certificate courses can be applied to the M.A.

Curriculum

Students must complete a total of 18 credit hours, of which 15 will result from required courses (listed below) and three from one or more elective courses. A minimum grade of C is required in each course.

Required Courses

ENGL	4117/5117	Grammar and Usage	3
ENGL	5150	Sound Systems of English	3
ENGL	5170	Teaching English as a Second Language ..	3
ENGL	5180	Internship in Teaching English as a Second Language	3
ENGL	5190	Second Language Acquisition	3

Elective Courses

Students must complete three credit hours from the list of courses below; other courses are acceptable if approved by the student’s advisor.

ENGL	5680	Seminar in Linguistics	3
ENGL	5950	Methods of Research	3

HDAL	5200	Advanced Educational Psychology	3
HDAL	5356	Language Development in Early Childhood	3
MEDA	5696	Application of Instructional Technology	3
CUAI	4437/5437	English as a Second Language (ESL) Assessment and Testing	2
CUAI	4447/5447	English as a Second Language (ESL) Reading and Instruction	2
CUAI	4467/5467	English as a Second Language (ESL) Methods and Techniques	2
READ	5190	Linguistics of Reading	3
Total Hours Required			18

Technology

Master of Science in Technology

W. Andrew Clark, Graduate Coordinator for Engineering Technology and Geoscience

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(423) 439-5995 Fax: (423) 439-7750
e-mail: clarkw@etsu.edu

Cheryl L. Cornett, Graduate Coordinator for Digital Media

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(423) 979-3151 Fax: (423) 979-3160
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Faculty:

Tarig Ali; William Blanton; Hugh Broome; Edward Buxton; Guanghsu Chang; Marian Clark; William Clark; Dennis Coffey; Cheryl Cornett; Andrew Czuchry; Todd Emma; Martin Fitzgerald; Jimmy Hahs; William Hemphill; Peter Hriso; Carroll Hyder; Keith Johnson; Robert May; Jerry Nave; Charles Parker; Norman Riddle; Joseph Sims; Charles Story; Primus Tillman; John Vaglia; James Wronecki.

The Master of Science in technology explores the technologies found in our industrial society, such as implementation and utilization of machines, materials, software, and other technical means, as well as the relation of those elements and systems to human beings, society, and the culture. This program offers three concentrations: engineering technology, digital media, and geoscience.

The concentration in engineering technology includes coursework in quality management, project management, and continuous quality improvement. Advanced work in the technical options (such as electronics and manufacturing) can be taken along with relevant courses in management, business administration, computer science, and mathematics.

The digital media concentration provides instruction in the latest techniques of animation, 3D visualization, digital video, interactive multimedia, and digital media project and process management. For more information and examples of student work, visit the web site <http://digm.etsu.edu>.

The geoscience concentration is designed to provide students with a foundation in research investigations, quantitative techniques, theories of place, and geoscience thought. The concentration provides students with the opportunity to take advanced courses with a focus in geography, geology, or geomatics.

Program Admission Requirements

1. An undergraduate major or minor in a technically related area.
2. An undergraduate course in probability and statistics.
3. An overall GPA of 3.0.

Digital Media Concentration

**See Digital Media*

Engineering Technology Concentration

**See Engineering Technology*

Geoscience Concentration

**See Geoscience*

Urban Planning Graduate Certificate

Dr. J. David Briley, Interim Director

Associate Professor of Political Science
219 Rogers-Stout Hall
Box 70651
(423) 439-6697
e-mail: briley@etsu.edu

This 15-hour graduate certificate program provides training in urban planning theory, local and regional planning, and related subjects. Urban planning is one of the fastest growing professions in the U.S.

Admission Requirements: Graduate Record Exam, undergraduate transcripts, application form, and essay.

Major Field Core	9 credit hours
URBS 5637 Local and Regional Planning	3
URBS 5020 Urban Planning Theory	3
URBS 5107 Urban Geography and Planning	3

Electives	6 credit hours
Any two of the following courses:	
GEOG 5217 Geographic Information Systems	3
GEOG 5317 Advanced Geographic Info. Systems	3
URBS 5347 Economic Development Planning	3
URBS 5087 Recreation and Tourism Planning	3
Total Credit Hours Required	15

**East Tennessee State University
School of Graduate Studies
Graduate Course Descriptions**

Abbrev.	Description	Abbrev.	Description
ACCT	Accountancy	JOUR	Journalism
ADVR	Advertising	KLSS	Kinesiology, Leisure and Sport Sciences
ALHE	Allied Health	LANG	Foreign Languages
ALNU	Adult Nursing	MALS	Master of Arts in Liberal Studies
AMBA	Accelerated Master of Business Administration	MATH	Mathematics
ANCB	Anatomy and Cell Biology	MCOM	Mass Communications
APST	Appalachian Studies	MDED	Medical Education
ARTA	Art and Design	MEDA	Educational Media and Educational Technology
AVST	Archival Studies	MGMT	Management
BADM	Business Administration	MICR	Microbiology
BIOC	Biochemistry and Molecular Biology	MKTG	Marketing
BIOL	Biological Science	MUSC	Music
BIOM	Biomedical Science	PHAR	Pharmacology
BLUE	Bluegrass, Old Time, and Country Music	PHIL	Philosophy
CDIS	Communicative Disorders	PHYS	Physics
CHEM	Chemistry	PHYT	Physical Therapy
CJCR	Criminal Justice and Criminology	PHSI	Physiology
CSCI	Computing	PMGT	Public Administration
CUAI	Curriculum and Instruction	PMNU	Professional Roles/Mental Health Nursing
DIGM	Digital Media	PRST	Professional Studies
ECED	Early Childhood Education	PSYC	Psychology
ECON	Economics	PUBH	Public Health
EDFN	Foundations of Education	PUBR	Public Relations
ELPA	Educational Leadership and Policy Analysis	READ	Reading/Storytelling
ENGL	English	RTVF	Radio/Television/Film
ENTC	Technology	SALM	Sports and Leisure Management
ENVH	Environmental Health	SCED	Science Education
FACS	Family and Consumer Sciences	SOAA	Sociology and Anthropology
FCNU	Family/Community Nursing	SOWK	Social Work
FNCE	Finance	SPAN	Spanish
FREN	French	SPCH	Speech
GEOG	Geography	SPED	Special Education
GEOL	Geology	STOR	Storytelling
GERM	German	SURV	Surveying and Mapping
HDAL	Human Development and Learning	TESL	Teaching English as a Second Language
HIST	History	THEA	Theatre
HSCI	Health Sciences	URBS	Urban Studies
IDGE	Interdisciplinary Gerontology		

Accountancy (ACCT)

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(s): 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.

ACCT 5100 Managerial Accounting (3 credits)—*Prerequisite(s): 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 5310 Seminar in Management Advisory Services (3 credits)—*Prerequisite(s): 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(s): ACCT 3410 or equivalent.* An advanced study of federal income, estate, and gift taxation with emphasis on tax research and planning.

ACCT 5427 Income Taxes II (3 credits)—*Prerequisite(s): 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 5510 Seminar in Accounting Regulation (3 credits)—*Prerequisite(s): ACCT 3020 or equivalent.* A comprehensive study of accounting ethics and federal regulations affecting the accounting profession. Areas of study will include the Uniform Commercial Code and Securities and Exchange Commission laws.

ACCT 5527 Financial Statement Analysis (3 credits)—*Prerequisite(s): 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 5610 Seminar in Auditing (3 credits)—*Prerequisite(s): 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 5627 Auditing II (3 credits)—*Prerequisite(s): 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 5717 Non-Profit Entity Accounting (3 credits) —*Prerequisite: ACCT 3020.* Theory, concepts, organization, and functions of not-for-profit entity accounting units; an intensive study of accountancy, budgeting, financial processes, reporting, and auditing in the not-for-profit entity environment.

ACCT 5720 Government Accounting Issues (3 credits)—*Prerequisite(s): 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(s): 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)—*Prerequisite(s): 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.

ACCT 5957 Topics in Accountancy (1-6 credits)—*Prerequisite(s): 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.

ACCT 5990 Readings and Research (1-3 credits).

Advertising (ADVR)

ADVR 5101 Topics in Advertising (1-6 credits)

ADVR 5900 Independent Study in Advertising (1-3 credits)

ADVR 5957 Topics in Advertising (1-6 credits)

Allied Health (ALHE)

ALHE 5000 Information Technology in Allied Health Sciences (1 credit) — This course is designed to aid the first-year graduate student in Allied Health Sciences to become proficient in the use of technology to conduct research and prepare multimedia presentations. This course will provide the student with the necessary skills to be successful in an online course.

ALHE 5010 Clinical Teaching Strategies (3 credits) — This course examines the principles of instructional design and their application to clinical teaching. Topics include teaching and learning theories, clinical teaching strategies, and evaluation processes.

ALHE 5050 Legal and Ethical Issues in Allied Health (3 credits) — This course examines the ethical and bioethical problems confronting health care delivery systems. Selected legal principles and their application to the health care field, including corporate liability, malpractice, informed consent, and governmental regulation of health personnel and health facilities will be addressed. Discussion forums on case studies will be incorporated into the course throughout the semester.

ALHE 5060 Allied Health Curriculum Design (3 credits) — This course is designed to offer the student experience in the development and management of an allied health curriculum in their discipline. Allied health accreditation standards will be discussed and their impact on curriculum design and program outcomes. The students will develop a course of study for their discipline and present this to the instructor during the next to last week of the class.

ALHE 5070 Leadership Theory for Health Care Delivery (3 credits) — This course combines leadership theory and practice by blending discussion of research and theory with practical suggestions for improving leadership effectiveness in the health care environment. Topics include leadership and communication styles, various approaches to leadership, sources of power, and the key to successful influence in leadership. Public, group, organizational, and team leadership will be discussed along with an overview of the four-frame model. Issues essential to the study and practice of leadership in health care delivery will be incorporated.

ALHE 5100 Interdisciplinary Health Care Teams (2 credits) — This course examines the practice and teaching implications of interdisciplinary teamwork in the health care environment. Topics include a discussion on group dynamic, team building, role theory, and conflict resolution.

ALHE 5150 Population Health Issues for the Allied Health Professional (3 credits) — This course examines the role and responsibility of the allied health professional in relation to current population health needs. The course will be guided by a social justice perspective and designed to immerse the student in the community. Case examples of health programs designed to address community health issues and social inequalities add to the analysis process.

ALHE 5200 Assessment, Planning, and Evaluation (3 credits) — *Prerequisite: ALHE 5500.* This course examines the process of assessment, planning, and evaluation as they relate to the allied health professional in a leadership role. Students will learn how to assess a problem or situation relevant to their working environments, propose an intervention, and design a logical evaluation plan to measure intervention effectiveness.

ALHE 5300 Administration at the Department Level (3 credits) — This course examines the function of department-level administrators in health care and academic environments. Topics include a discussion on the roles and responsibilities, recruitment, retention, productivity, staff development, and strategic planning for administrators. Case studies will be incorporated into class discussion when appropriate.

ALHE 5500 Methods of Research in Allied Health (3 credits) — This course includes the study of research as it applies to allied health. Methods of conducting qualitative and quantitative research, sampling techniques, statistic analysis, data interpretation, and recommendations will be discussed. The course includes the completion of a research prospectus.

ALHE 5700 Financial and Strategic Planning for ALHE Professions (3 credits) — This course examines the function of health care finance from an allied health manager's perspective. The course will prepare the learner for interpreting basic financial statements and familiarize the learner with managerial accounting goals. The learner will be able to take financial data and formulate strategic decisions based upon the available information to lead an organization toward positive financial outcomes.

ALHE 5800 Advanced Practice Seminar in ALHE (3-6 credits) — *Prerequisite: ALHE 5500 or permission of instructor.* This course provides in-depth practicum experience with an approved preceptor in allied health administration, education, or clinical practice. Student selection of advanced practice experience should be based on concentration of study and approval from the instructor. Upon conclusion of the course, students will complete a project analyzing its impact on their future allied health practice.

ALHE 5900 Independent Study in Allied Health (3 credits) — *Prerequisite:* *Permission of the instructor.* This course is designed for students pursuing an in-depth study in an area of interest in the field of allied health.

ALHE 5910 Seminar in Allied Health (1 credit) — *Prerequisite:* *Permission of instructor.* A study of the principles, materials, and methods of research employed in allied health.

ALHE 5950 Special Topics in Allied Health (3 credits) — This course is offered when there is sufficient demand for additional study in a specific subject matter. May be repeated for different topics. Consultation with the instructor is recommended before enrollment.

ALHE 5960 Thesis (3-6 credits) — *Prerequisite:* *ALHJE 5500 or permission of instructor.* A research project is developed and written under the supervision of a faculty committee.

ALHE 5990 Readings and Research (1 credit) — *Prerequisite:* *Permission of instructor.* 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 the 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. Grading of Readings and Research will be either satisfactory completion (S), satisfactory progress (SP), or unsatisfactory (U).

Adult Nursing (ALNU)

ALNU 5009 Health Assessment Throughout the Life Span (3 credits)—*Prerequisite(s): Admission to the graduate program; Corequisite(s): 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)—*Prerequisite(s): Admission to the graduate program; Prerequisite(s)/Corequisite(s): 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 and Middle Adults (2 credits)—*Prerequisite(s): ALNU 5009, ALNU 5010, PMNU 5000; Prerequisite(s)/Corequisite(s): ALNU 5016 and 5018.* 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 and Middle Adults Practicum (3 credits)—*Prerequisite(s): ALNU 5009, 5010, PMNU 5000; Prerequisite(s)/Corequisite(s): ALNU 5011, ALNU 5016, ALNU 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)—*Prerequisite(s): ALNU 5009 and 5010, PMNU 5000; Prerequisite(s)/Corequisite(s): ALNU 5016 and ALNU 5018.* 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 for older adults and their families. (summer)

ALNU 5014 Life Span Assessment and Clinical Management: Older Adults Practicum (3 credits)—*Prerequisite(s): ALNU 5009, ALNU 5010, PMNU 5000; Prerequisite(s)/Corequisite(s): ALNU 5013, ALNU 5016 and ALNU 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)—*Prerequisite(s): Admission to graduate program or permission of instructor.* 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-in online format)

ALNU 5018 Advanced Clinical Pharmacology (3 credits)—*Prerequisite(s): Admission to graduate program or permission of instructor.* 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. (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(s): 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(s)/Corequisite(s): 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)—*Prerequisite(s): ALNU 5009, ALNU 5010, PMNU 5000; Prerequisite(s)/Corequisite(s): ALNU 5016 and ALNU 5018.* 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. (spring)

ALNU 5032 Practicum in the Care of the Older Adult in Structured Settings (3 credits)—*Prerequisite(s): ALNU 5009, ALNU 5010, and PMNU 5000; Prerequisite(s)/Corequisite(s): ALNU 5016, ALNU 5018 and ALNU 5031.* 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. (spring)

ALNU 5038 Pharmacology and Therapeutics for Older Adults (1 credit)—*Prerequisite(s): 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. (spring)

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 5210 Advanced Pharmacology for Non-Prescribers (3 credits) — *Prerequisite:* *Admission to Graduate Program or permission of instructor.* The course significantly expands on foundational knowledge of pharmacological agents used to treat health problems of client groups of all ages. Emphasis is placed on indications, contraindications, interactions, delivery methods, and desired clinical outcomes for these agents. (spring)

ALNU 5267 Nursing Management of the Critically Ill Adult (3 credits)—*Prerequisite(s): Current R.N. Licensure, or permission of the instructor, an arrhythmia or dysrhythmia course.* 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. (elective) (fall, spring)

ALNU/FCNU/PMNU 5900 Independent Study (1-6 credits)—*Prerequisite(s): Admission to the School of Graduate Studies.* 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) (fall, spring)

ALNU/FCNU/PMNU 5957 Special Topics in Nursing (1-6 credits)—*Prerequisite(s): 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. (elective) (fall, spring)

ALNU/FCNU/PMNU 5960 Thesis (1-6 credits)—(fall, spring)

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). (fall, spring)

ALNU 6010 Concept Development in Nursing Practice I (3 credits)—*Prerequisite(s): PMNU 6000.* 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. (fall)

ALNU 6012 Concept Development in Nursing Practice II (3 credits)—*Prerequisite(s): ALNU 6010.* 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. (spring)

ALNU 6016 Advanced Concepts in Pathophysiology (3 credits)—*Prerequisite(s): 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 6570 Nursing Administration Practicum (3 credits)—*Prerequisite(s): Two (2) nursing administration cognates.* Provides in-depth practicum experiences with approved preceptor(s) in nursing administrative roles.

ALNU 6900 Dissertation Seminar (1 credit)—*Prerequisite(s): FCNU 6014.* This seminar is designed for the doctoral student to prepare them for the dissertation process. (fall, spring)

ALNU/FCNU/PMNU 6960 Doctoral Dissertation (1-12 credits)—*Prerequisite(s): Successful completion of Qualifying Examination.* Supervised research toward dissertation. (fall, spring)

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 not be appropriately covered by other types of independent study. (fall, spring)

Accelerated Master of Business Administration (AMBA)

AMBA 5140 Data Analysis and Modeling (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor.* This course explores the scope of business research, scientific reasoning, problem identification, hypothesis formulation, and data analysis in an accelerated, case-based approach. Topics in statistical analysis include parametric and nonparametric tests, regression, and the use of statistical software. The course is an intensive, accelerated, case-based approach using both online and on-ground components. Enrollment is by permit only.

AMBA 5150 Accounting Information for Decision Making (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor.* A comprehensive study of accounting information and its uses by professional managerial decision makers. Topics include areas in financial and managerial accounting and components of consolidated financial statements, cost and variance analysis, and budgeting. The course is an intensive, accelerated, case study-based approach to accounting information, and is taught with both online and on-ground components. Enrollment is by permit only.

AMBA 5180 Economics for Managers (3 credits)—*Prerequisites: At least three years of professional managerial experience; admission to the*

accelerated MBA program or permission of instructor. This course presents applications of microeconomic and macroeconomic theory, tools, and principles as they relate to problems and decisions that confront professional managers of business and other organizations. Microeconomics topics include demand and supply analysis, production decisions, market structure, and input employment decisions. Macroeconomic topics include measurement of economic activity and performance, macromodels, economic policy, and international economic dynamics. The course is an intensive, accelerated, case-based approach to economics and is taught using both on-line and on-ground components. Enrollment is by permit only.

AMBA 5210 Operations and Technologies Strategies (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program or permission of the instructor.* This course examines the strategic impact of decisions relating to the delivery of products, services, and technology in organizations. Applications and case analyses are used to study operational value and cost, materials management and distribution, management of technologies, and management for continuous improvement for professional managers. The course is an intensive, accelerated, case study-based approach and is taught with both online and on-ground components. Enrollment is by permit only.

AMBA 5220 Global Business (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor.* This course will provide professional managers with the latest conceptual tools and practical applications related to global business. Topics to be covered include organizational culture, international negotiation, communication and culture, leadership in a global environment, and international project management. The course is an intensive, accelerated, case study-based approach and is taught with both online and on-ground components. Enrollment is by permit only.

AMBA 5230 Strategic Leadership (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor.* This course focuses on the leadership roles and responsibilities of strategic managers and top-level managers who are responsible for setting organizational direction, enrolling employee commitment, identifying and managing organizational core competencies, establishing supportive organizational cultures, and ensuring organizational integrity. The course is an intensive, accelerated, case study-based approach and is taught with both online and on-ground components. Enrollment is by permit only.

AMBA 5400 Market Strategy (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor.* This course explores the role of marketing in the development of organizational strategy, with emphasis on the business unit and product market strategy levels. The topics of this course include analytical approaches and tools to evaluate international and domestic market opportunities. A variety of learning models are used. The class is an intensive, accelerated, case study-based approach and is taught with both online and on-ground components. Enrollment is by permit only.

AMBA 5430 Applied Corporate Finance (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor.* 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 appropriate to professional managers. The course is an intensive, accelerated, case study-based approach and is taught with both online and on-ground components. Enrollment is by permit only.

AMBA 5500 Strategic Management Process (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor.* This course introduces students to strategic thinking and provides the framework for the entire MBA program. The course takes an executive perspective of general management and 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. The course is an intensive, accelerated, case study-based approach and is taught with both online and on-ground components. Enrollment is by permit only.

AMBA 5800 Strategic Experience (3 credits) — *Prerequisites: At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor; completion of all MBA core courses. (May be taken concurrently with the permission of the Associate Dean for Graduate Studies.)* This capstone course is designed to provide MBA 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. The course is an intensive, accelerated experience having both on-ground and online components. Enrollment is by permit only.

Anatomy and Cell Biology (ANCB)

ANCB 5000/6000 Human Gross Anatomy (11 credits)—*Prerequisite(s): 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(s): 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. (fall, spring)

ANCB 5080/6080 Biological Ultrastructure (4 credits)—*Prerequisite(s): 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. (spring)

ANCB 5095/6095 Cell and Tissue Biology (7 credits)—*Prerequisite(s): 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 5200/6200 Cellular, Molecular, and Developmental Biology Seminar (2 credits)—*Prerequisite(s): 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. (fall, spring)

ANCB 5410/6410 Human Neurobiology (6 credits)—*Prerequisite(s): 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. (fall, even 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. (fall, spring, summer)

ANCB 5600/6600 Special Topics in Cell Biology (3 credits)—This is a tutorial course on special areas of interest to cell biologists. May be taken repeatedly with different topics. (fall, spring, summer)

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. (5700 - spring; 6700 - spring, summer)

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. (fall, even 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. (fall, spring, summer)

ANCB 5960 Anatomy and Cell Biology Thesis Research (1-3 credits)—Supervised research toward thesis. (fall, spring, summer)

ANCB 7960 Anatomy and Cell Biology Dissertation Research (1-16 credits)—Supervised research toward dissertation. (fall, spring, summer)

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). (fall, spring, summer)

Anthropology (ANTH)

ANTH 5007 Archaeology of the Southeastern United States (3 credits)—*Prerequisite: ANTH 1260.* Intensive survey of the prehistory of the Southeastern United States. Course covers the span of time from the peopling of the New World, some 13,000+ years ago, up through European contact.

ANTH 5017 Historic Native American Cultures of the Southeastern U.S. (3 credits) — An archaeological survey of the historically known Native American tribes of the Southeastern U.S. Study of native lifeways and the effects of European influence and colonization efforts on aboriginal societies.

ANTH 5037 Old World Archaeology (3 credits) — *Prerequisite: ANTH 1260.* An intensive survey of the prehistory of Africa, Asia, and Europe from the Palaeolithic Era (including human origins and early hunter gatherer adaptations) through the Iron Age (including the transition to domestication and agriculture as well as the rise of complex societies).

ANTH 5567 Scottish Ethnology (3 credits) — A survey of Scottish ethnic and regional groups and their folk traditions. Topics covered include life history, material culture, subsistence patterns, folk narrative and beliefs and customs.

ANTH 5957 Special Topics in Anthropology (1-6 credits)

Appalachian Studies (APST)

APST 5150 Seminar in Appalachia and Religion (3 credits)—This seminar will look in depth at one aspect of religion in Appalachia. The topic may vary from year to year. Possible topics include missionaries and missionary schools in Appalachia, the sacred music of Appalachia, the nineteenth-century camp meeting movement, religion and literature in Appalachia, and the sociology of minority religion in Appalachia.

APST 5177 Art and Appalachia (3 credits) — *Prerequisite: ARTH2010 or 2020 or APST 2060 or permission of the instructor.* A survey of major styles and trends in the arts created in, for, and about the Appalachian region from the late 18th century to contemporary times.

APST 5237 Scots-Irish in Appalachia (3-6 credits) — This course will examine the contribution of the Scots-Irish and Scots to Appalachian culture.

APST 5337 Appalachia in Scotland (3-6 credits)—This course will survey the relationship among Appalachian, Scottish, and Irish cultures, with an emphasis on Scotland and Ireland.

APST 5567 Scottish Ethnology (3 credits)—A survey of Scottish ethnic and regional groups and their folk traditions.

APST 5690 Documenting Community Traditions (3 credits) — This cross-disciplinary seminar involves fieldwork in Appalachian communities seeking cultural or economic sustainability through the development of their traditional and contemporary assets.

APST 5907 Foodways of Appalachia (3 credits) — Traditional and developing food cultures of the Mountain South. Topics include: the historical roots of Appalachian cookery; food and class in Appalachia; Native American and African influences on mountain cuisine; immigrant cooking in the mountains; the rituals of the mountain table; the products of the land and larder; traditional food preservation techniques and beliefs; and the emergence and viability of sustainable agriculture and aquaculture.

APST 5997 Current Issues in Appalachian Studies (3 credits) — Seminar surveying major issues and concerns in Appalachian studies since the 1070s.

Art and Design (ARTA and ARTH)

Art History Classes

ARTH 5017 Classical Art (3 credits)—A survey of the arts of Greece and Rome. (fall)

ARTH 5027 Medieval Art (3 credits)—A survey of European architecture, sculpture, and painting from late antiquity to the end of the Gothic period. (variable)

ARTH 5037 Renaissance Art (3 credits)—A survey of European art from 1300 to 1600 with emphasis on Italian and Flemish. (variable)

ARTH 5047 Baroque Art (3 credits)—A survey of the major styles of European art from 1600 to 1800: Baroque, Rococo, and Neoclassicism. (fall)

ARTH 5057 19th Century Art (3 credits)—A survey of the major styles and trends in art from Neoclassicism to Postimpressionism. (spring)

ARTH 5067 Modern Art (3 credits)—Major developments in painting and sculpture from Postimpressionism through Surrealism. (fall)

ARTH 5077 Contemporary Art (3 credits)—A survey of art since 1945. (spring)

ARTH 5087 Asian Art (3 credits)—A study of the arts of India, China, and Japan.

ARTH 5097 Art History Theory (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 Brahmanic Hindu art, medieval sacred art, or modern symbolism. (as needed)

ARTA/ARTH 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)

ARTH 5127 History of Architecture (3 credits) — *Prerequisites: ARTH 2010 and ARTH 2020, or permission of instructor.* A detailed and critical survey of the

history of architecture, from pre-history to the present day, including both western and non-western architecture.

ARTH 5177 Appalachian Art (3 credits) — *Prerequisite:* ARTH 2010 or 2020 or APST 2060 or permission of the instructor. A survey of major styles and trends in the arts created in, for, and about the Appalachian region from the late 18th century to contemporary times.

ARTA 5201 Figure Drawing (1-6 credits) — *Prerequisite:* Graduate standing in the Department of Art and Design or permission of the instructor. An advanced level drawing class with the human figure as subject matter. (spring)

ARTA 5901 Independent Studies in Graduate Art (1-6 credits repeatable)—(Every semester).

ARTH 5910 Independent Studies in Art History (1-6 credits, repeatable)(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/ARTH 5957 Topic in... (1-6 credits)—*Prerequisite(s):* 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)

ARTA/ARTH 5960 Thesis. (1-3 credits)—*Prerequisite(s):* Admission to candidacy and approval by the department. Final Preparation of master's thesis.

ARTA/ARTH 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 Metalsmithing & Jewelry Design (1-6 credits, repeatable)—(fall, spring)

ARTA 5110 Ceramics (variable 1-6 credits, repeatable)—(fall, spring)

ARTA 5130 Painting (variable 1-6 credits, repeatable)—(fall, spring)

ARTA 5140 Photography (variable 1-6 credits, repeatable)—(fall, spring)

ARTA 5160 Sculpture (variable 1-6 credits, repeatable)—(fall, spring)

ARTA 5170 Weaving (variable 1-6 credits, repeatable)—(fall, spring)

ARTA 5200 Drawing (variable 1-6 credits, repeatable)—(fall, spring)

ARTA 5350 Graduate Graphic Design (variable 1-6 credits, repeatable)—(fall, spring)

ARTA 5911 Printmaking (variable 1-6 credits, repeatable)—(fall, spring)

Archival Studies (AVST)

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 archival repositories, the mission of the archivist, legislation and regulations influencing archival work, and contemporary concerns of the archival profession. (fall, spring)

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. (fall, spring)

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. (summer)

AVST 5315 Topics in Archival Studies (3 credits)—*Prerequisite(s):* Permission of instructor. Selected topics of current interest in archival studies. May be repeated for credit when the topic varies.(summer)

AVST 5570 Archives Practicum (3 credits)—*Prerequisite(s):* AVST 5310, AVST 5311, and AVST 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. (summer)

Business Administration (BADM)

BADM 5140 Data Analysis Mod. for Business (3 credits)—*Prerequisite(s):* 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 5150 Accounting Information for Decision Making (3 credits)—*Prerequisites:* At least three years of professional managerial experience; admission to the accelerated MBA program, or permission of the instructor. A comprehensive study of accounting information and its uses by professional managerial decision makers. Topics include areas in financial and managerial accounting and components of consolidated financial statements, cost and variance analysis, and budgeting.

BADM 5160 Information Infrastructure (3 credits)—*Prerequisite(s):* 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/ENTC 5170 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 5180 Economics for Managers (3 credits)—*Prerequisite(s):* ECON 5000 or equivalent. This course presents applications of microeconomic and macroeconomic theory, tools, and principles as they relate to problems and decisions that confront managers of business and other organizations. Microeconomics topics include demand and supply analysis, production decisions, market structure, and input employment decisions. Macroeconomic topics include measurement of economic activity and performance, macromodels, economic policy, and international economic dynamics.

BADM 5210 Operations and Technology Strategies (3 credits)—*Prerequisite(s):* BADM 5140 and BADM 5150. This course examines the strategic impact of decisions relating to the delivery of products, services and technology in organizations. Applications and case analyses are used to study operational value and cost, materials management and distribution, management of technologies, and management for continuous improvement.

BADM 5220 Global Business (3 credits)—*Prerequisite(s):* MGMT 5010 or equivalent. This course will provide students with the latest conceptual tools and practical applications on aspects of global business. Topics to be covered include organizational culture, international negotiation, communication and culture, leadership in a global environment, and international project management.

BADM 5340 Human Resource Strategy (3 credits)—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 5400 Market Strategy (3 credits)—*Prerequisite(s):* 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 5430 Applied Corporate Finance (3 credits)—*Prerequisite(s):* 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.

BADM 5500 Strategic Management Process (3 credits)—*Prerequisite(s):* ECON 5000, MGMT 5010 and MKTG 5010 or equivalents. This course introduces students to strategic thinking and provides a framework for the entire 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 5800 Strategic Experience (3 credits)—*Prerequisite(s):* BADM 5120 through 5500. (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 program.

BADM 5990 Readings and Research (1-3 credits).

Biochemistry and Molecular Biology (BIOC)

BIOC 5010/6010 Biochemistry (7 credits)—*Prerequisite(s):* 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. (spring)

BIOC 5100/6100 Protein Structure and Function (3 credits)—*Prerequisite(s):* 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. (5100 -fall, even years; 6100 - spring, even 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. (fall, spring, summer)

BIOC 5350/6350 Molecular Immunology (3 credits)—*Prerequisite(s): 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. (fall, even years)

BIOC 5500/6500 Special Topics in Biochemistry (2 credits)—*Prerequisite(s): 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. (fall, spring, summer)

BIOC 5600/6600 Molecular Biology and Genomics (3 credits)—*Prerequisite(s): 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. (fall, even years)

BIOC 5700/6700 Macromolecular Interactions (3 credits)—*Prerequisite(s): 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. (spring, even years)

BIOC 5900/6900 Special Problems in Biochemistry (1-5 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. (fall, spring, summer)

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). (fall, spring, summer)

BIOC 5960 Thesis Research (1-3 credits)—Supervised research toward thesis. (fall, spring, summer)

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. (fall, spring, summer)

BIOC 7960 Biochemistry Dissertation Research (1-18 credits)—Supervised research toward dissertation. (fall, spring, summer)

Biological Sciences (BIOL)

BIOL 5037 Coastal Biology Field Trip (1 credit)—*Prerequisite(s): 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)—*Prerequisite(s): 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 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 5147 Biochemistry of Macromolecules (3 credits lecture)—*Prerequisite(s): 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)—*Prerequisite(s)/Corequisite(s): 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)—*Prerequisite(s): 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(s)/Corequisite(s): 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 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 5247 Appalachian Flora (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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(s): 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)—*Prerequisite(s): 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 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 5337 Plant Systematics (4 credits)—*Prerequisite(s): 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(s): 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)—*Prerequisite(s): 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(s): Ecology or permission of instructor.* Computer simulation modeling of ecological systems. Three hours lecture/discussion/workshop per week. (spring, 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 5467 Ichthyology (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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 5487 Paleobotany (4 credits)—This course concerns the evolutionary history of plants as revealed by the fossil record. Included are an introduction to the concepts of geological time, stratigraphy and sedimentation, fossilization of plants, and the diversity of plants through time. Two one-hour lectures and two three-hour labs weekly.

BIOL 5500 Biometry (3 credits) — *Prerequisite: Probability and Statistics.* Application of experimental design, accumulation and statistical treatment of biological data. A practical rather than theoretical approach. One hour lecture and two two-hour laboratories per week. (spring)

BIOL 5597 Recombinant DNA Laboratory (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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 5700 Seminar (1 credit)—*Prerequisite(s): 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 5737 Conservation Biology (4 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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 5900 Independent Studies (1-4 credits)—*Prerequisite(s): 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 5910 Research in Biology (1-4 credits)—*Prerequisite(s): 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 Biology (1-6 credits)—*Prerequisite(s): 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)

BIOL 5960 Thesis (1-3 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 1-3 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)

Biomedical Science (BIOM)

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 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. (5300 - fall, odd years; 6300 - fall, even years)

BIOM 5800/6800 Proteins and Proteomics (3 credits) — *Prerequisite: Biomedical Science I and II (BIOM 5010/6010 and 5020/6020), or permission of the course director.* This is an advanced graduate course on proteins, proteomics, and computer analysis of proteins. Topics to be covered include: protein structure, molecular modeling, protein purification, sequence analysis, protein-protein interactions, protein-nucleic acid interactions, and proteome analysis, using techniques, such as 2D-gels and mass spectrometry. Lectures and literature discussions. Offered in even numbered years. (spring, even years)

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. (fall, spring)

Bluegrass, Old Time, and Country Music (BLUE)

BLUE 5147 Bluegrass and America's Music (3 credits) — The musical and commercial interaction between bluegrass and American folk music, jazz, pop, gospel, blues, rock, and classical traditions.

BLUE 5167 Bluegrass - The First Generation (3 credits) —A study of the musicians and the innovations that shaped the structure on which today's bluegrass is built.

BLUE 5410 Individual Instrumental Instruction (1-3 credits) — A flexibly designed course of study under an experienced musician. It provides an opportunity for the student to build upon intermediate or advanced skills and to develop musically on the path to reaching his or her full potential as an instrumentalist. Can be repeated.

BLUE 5510 Graduate Ensemble (1-3 credits) — A flexibly designed course of study under the direction of an experienced musician and band leader with focus on ensemble performance. Can be repeated.

BLUE 5900 Independent Study (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 director.

BLUE 5957 Special Topics (1-6 credits) — Selected topics in Bluegrass, Old Time, and Country Music. By permission of the director. Can be repeated for credit when content changes.

Communicative Disorders (CDIS)

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 5017 Speech and Hearing Science I (4 credits)—A study of the basic theories, physics, and acoustics of speech production. Information pertaining to the anatomy and physiology of spoken language also are presented. This course provides a laboratory experience that includes an introduction to the International Phonetic Alphabet and transcriptions of speech from typical speakers with different regional dialects.

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 5027 Speech and Hearing Science II (4 credits)—*Prerequisite(s): CDIS 4010.* A study of the physiologic acoustics of the auditory periphery, neurophysiology of the speech and hearing systems, and an introduction to research tools in speech and hearing science. The laboratory portion of the course provides interactive demonstrations pertaining to the physiologic acoustics of the auditory periphery, neurophysiology of the speech and hearing systems, and an introduction to instrumentation used in speech and hearing science.

CDIS 5030 Fluency Disorders (3 credits)—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(s): 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 5037 Anatomy and Physiology of the Speech and Hearing Systems (3 credits) — A study of the basic anatomy and physiology of speech/hearing mechanisms. Theories and mechanisms of speech production and hearing will also be covered.

CDIS 5040 Adult Language Disorders (3 credits)—*Prerequisite(s): 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(s): 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 5200 Language Disorders of School-Aged Children (3 credits)—*Prerequisite(s): CDIS 5015.* A study of language disorders of school-age children and their influence on literacy with emphasis on evaluation, treatment techniques, and collaborative strategies for the administration of services in the schools.

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(s): 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(s): 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)—*Prerequisite(s): 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(s) 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(s) 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(s): 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(s): 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 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 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 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(s): 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(s): 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(s): 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(s): 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 Communicative 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).

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(s): CDIS 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(s): CDIS 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 (3 credits)—*Prerequisite(s): 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(s): CDIS 6115.* 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(s): CDIS 6195.* A study of the advanced audiologic 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 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 6330 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(s): 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 6355 Tinnitus Management (3 credits)—This course will provide an overview of strategies used to diagnose, quantify, and manage tinnitus. Causes and mechanisms of tinnitus generation, exacerbation, and amelioration will be identified. Treatment approaches covered in the class include tinnitus masking, retraining, cognitive behavioral therapy, and use of pharmacological and homeopathic agents.

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 audiologic function and diagnosis.

CDIS 6361 Advanced Vestibular Assessment and Rehabilitation (3 credits)—*Prerequisite(s): CDIS 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 6410 Audiology Seminar (3 credits)—*Prerequisite(s): CDIS 6400.* 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 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(s): 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.

Chemistry (CHEM)

All graduate courses are offered on a rotation basis. All Core courses will be repeated at least every three years.

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(s): 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(s): 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(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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(s): 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 5450 does not count toward the required 30 credit hours.

CHEM 5510 Advanced Organic Chemistry (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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 5547 Molecular Orbital Theory for Organic Chemistry (3 credits)—*Prerequisite(s): 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 5710 Chemical Thermodynamics (3 credits)—*Prerequisite(s): 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(s): 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(s): 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 5817 Introduction to Industrial Chemistry (3 credits)—*Prerequisite(s): One year of organic chemistry.* A course designed to bridge the gap between basic chemical science and chemical engineering.

CHEM 5950 Research in Chemistry (1-3 credits)—*Prerequisite(s): Permission of the chair of the department.* A laboratory study on a specific problem entailing original investigation.

CHEM 5957 Special Topics in Chemistry (1-6 credits)—*Prerequisite(s): 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.

CHEM 5960 Thesis in Chemistry (1-3 credits)—*Prerequisite(s): 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 semester 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.

Criminal Justice and Criminology (CJCR)

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 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 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 and 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 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 the 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 (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 5337 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 5500 Topical Seminar (3 credits)—*Prerequisite(s): 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 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(s): 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(s): 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(s): 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 (1-3 credits)

CJCR 5957 Special Topics in Criminal Justice (1-6 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.

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).

Computing (CSCI)

CSCI 5011 Internet Technology I (3 credits) — *Prerequisite: Graduate Standing.* This course, a comprehensive study of the design and implementation of web sites, is organized into three major segments: HTML programming, user interface design, and information architecture design. The course takes the user from creating web pages to designing a large web site. Emphasis is on the use of existing software applications that generate web-ready code. Other topics include HTML, multi-media integration, and browser plug-ins. Laboratory use of software and team participation is an integral part of this course.

CSCI 5012 Internet Technology II (3 credits) — *Prerequisite: CSCI 5011.* This course is intended to build upon a student's background in HTML web page and site design by teaching skills such as advanced web page and site design, web

site management, usability, accessibility, marketing principles, optimization for search engines, outsourcing, and emerging technologies.

CSCI 5017 Introduction to Information Assurance (3 credits)—*Prerequisite(s): CSCI 1100; Corequisite(s): Senior or graduate standing.* The course provides an introduction to information assurance for non-Computer Science majors including security risks of personal computers and computing environments and requirements and mechanisms for assuring information quality. The course includes both lecture and hands-on instruction.

CSCI 5027 Information Management (3 credits)—*Prerequisite(s): Permission of instructor.* An overview of DBMS concepts and topics appropriate to professionals who will be concerned with the management of DBMS servers and their use within a corporate setting.

CSCI 5057 Advanced Internet Technologies (3 credits)—*Prerequisite(s): Permission of instructor.* This course provides training in state-of-the-art Internet design tools by building upon students' existing background as programmers. Topics will address advanced issues in design, optimization, and maintenance of web pages and web sites, the latest in server and client-side programming, and other emerging technologies.

CSCI 5067 Networking Essentials (3 credits)—*Prerequisite(s): Permission of instructor.* General concepts of data communication and networking using popular conceptual models, together with recent developments in system administration with regard to current operating systems.

CSCI 5097 Emerging Technologies (3 credits)—*Prerequisite(s): Permission of instructor.* The course is designed to cover the most up-to-date topics in computer science and technology. Due to the changing nature of technology, topics will be varied to keep up with current developments.

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 (Flynn's taxonomy, 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. (irregular)

CSCI 5127 Database Management Systems I (3 credits)—*Prerequisite(s): CSCI 2210 and 2230, or 2910.* Does not apply toward credit for computer science M.S. degree. A study of the use and underlying principles of database management systems, and approaches for database design with an emphasis on the relational approach. Students will learn how to use good design techniques and implement methods for both small and large databases. Laboratory use of database software for designing, implementing, debugging, and maintaining database systems will be an integral part of this course. (most semesters)

CSCI 5150 Topics in Distributed Systems (3 credits)—*Prerequisite(s): 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 5157 Interactive Graphics (3 credits)—*Prerequisite(s): 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 5200 Software Systems Engineering (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): CSCI-1900 and CSCI 2210 or CSCI 2910, 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. (irregular)

CSCI 5217 Ethical Issues in Computing (3 credits)—*Prerequisite(s): 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 5220 Software Verification and Validation (3 credits)—*Prerequisite(s): 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. (spring, alternate years)

CSCI 5227 Advanced Database Systems (3 credits)—*Prerequisite: CSCI 4127/5127.* A continuation of the study of the use and underlying principles of database design begun in CSCI 4127/5127. Students will learn more of the internal working of database management systems, as well as exploring approaches other than relational. Laboratory use of database software for designing, implementing, debugging, and maintaining database systems will be an integral part of this course. (most semesters)

CSCI 5230 Software Project Management (3 credits)—*Prerequisite(s): Admission to the master's program. Co-requisite: CSCI 5200.* Process considerations in software systems development. Advanced material in software project planning, monitoring and controlling mechanisms, leadership, and team building. (fall)

CSCI 5250 Database Design (3 credits)—*Prerequisite(s): 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, alternate years)

CSCI 5300 Software Design (3 credits)—*Prerequisite(s): 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 5317 Internet and Computer Law (3 credits)—*Prerequisite(s): 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 5360 Topics in Network and System Administration (3 credits)—*Prerequisite(s): 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. (spring, alternate years)

CSCI 5417 Introduction to System Administration (3 credits)—*Prerequisite(s): 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 provides hands-on experience with setting up and administering Unix and Windows network operating systems. (most semesters)

CSCI 5460 Network and Information Security (3 credits)—*Prerequisite(s): 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. (fall, alternate years)

CSCI 5517 Essentials of Multimedia (3 credits)—*Prerequisite(s): Senior or permission of the 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 are emphasized.

CSCI 5520 Research Methods in Computer Science (1 credit)—*Prerequisite(s): Admission to the computer science master's program.* An introduction to academic research, as conducted in the computer sciences. Topics include forces shaping computing 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 one of the capstone sequences: i.e., one of software development projects to be offered in the next term; or a proposal for a thesis topic set by the department's faculty. (fall)

CSCI 5527 Computer Authoring (3 credits)—*Prerequisite(s): 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 5550 Directed Research 1 (3 credits)—*Prerequisite(s): CSCI 5520 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 is 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(s): CSCI 5550.* The student, in consultation with the student's advisory committee chair, continues research undertaken in CSCI 5550 and begins to write 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(s): 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. (irregular)

CSCI 5620 Analysis of Algorithms (3 credits)—*Prerequisite(s): Differential and integral calculus, discrete structures, data structures.* This course covers basic techniques for analyzing algorithmic complexity. It describes the design and analysis of selected algorithms for solving important problems that 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. (fall, alternate years)

CSCI 5710 E-Commerce Implementation (3 credits)—*Prerequisite(s): Admission to the computer science master's degree program.* This course gives students the opportunity to become conversant in the major topics surrounding business-to-consumer (b2c) electronic commerce. Students also gain experience implementing a large scale b2c Internet application. (fall, alternate years)

CSCI 5717 Computer Architecture (3 credits)—*Prerequisite(s): 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. (spring)

CSCI 5720 Enterprise and E-Business Integration (3 credits)—*Prerequisite(s): Admission to the computer science masters degree program.* This course gives students the opportunity to become conversant in the major topics surrounding business-to-business (b2b) electronic commerce and enterprise application integration. Students also gain experience implementing a b2b and enterprise application components. (spring, alternate years)

CSCI 5727 Operating Systems (3 credits)—*Prerequisite(s): 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 5857 User Interface Programming (4 credits)—*Prerequisite(s): 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. (irregular)

CSCI 5900 Independent Study (1-9 credits)—(every semester)

CSCI 5905 Internship (1-3 credits) — Planned and supervised work experiences related to the practice of computing. This course does not count for credit towards a student's degree. Departmental approval required.

CSCI 5910 Software Development Project I (3 credits)—*Prerequisite(s): CSCI 5520 and instructor's permission.* Students who are conditionally admitted to the graduate program must remove all conditions before enrolling in this course. The software capstone 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 (spring, fall, spring). 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. (spring)

CSCI 5920 Software Development Project II (3 credits)—*Prerequisite(s): CSCI 5910 or instructor's permission.* 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 in 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(s): CSCI-5920 and instructor's permission.* This phase of the project and teaches students to be critical of their own work and to be realistic about their plans. This course's main purpose 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 5957 Special Topics in Computer Science (1-6 credits)—*Prerequisite(s): 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)

CSCI 5960 Thesis in Computer and Information Sciences (1-3 credits)—*Prerequisite(s): 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 credits)— Planned and supervised work experiences in business, industry, and governmental agencies. Students spend the semester working with a cooperating employer on specific assignments. Students must clear arrangements through ETSU's Office of Career and Internship Services prior to registering for this course. Students may receive compensation for this course as employees. This course does not count for credit toward a student's degree.(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).

Curriculum and Instruction (CUAI)

CUAI 5110 Elementary Curriculum (3 credits)—This course is designed to investigate the current issues and trends related to curriculum development in the early elementary grades (K-6). Emphasis is placed on developing teachers' leadership skills for initiating positive change in the school curriculum.

CUAI 5113 Instructional Excellence in Mathematics (K-8) (3 credits)—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)—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)—This course is designed to investigate the current trends and issues that affect methodology and content in a social studies curriculum (K-8).

CUAI 5116 Elementary School Mathematics (3 credits) — 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-6. Students will be required to design an action research project for this course.

CUAI 5119 Elementary School Science (3 credits) — This course provides elementary teachers (K-6) with innovative approaches to organizing, teaching, and assessing science learning. Emphasis is placed on understanding how students learn science and exploring strategies that enable students to have successful learning experiences. (spring, odd years)

CUAI 5121 Elementary School Social Studies (3 credits) — This course is designed to investigate the current trends and issues that affect methodology and content in a social studies curriculum. (fall, odd years)

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. (spring, summer)

CUAI 5200 Middle School/Junior High Curriculum (3 credits)—This course explores the development and dynamic nature of the middle school/junior high curriculum. Current and new visions for middle level education will be discussed in relationship to the resources and support necessary for middle/junior high school reform.

CUAI 5210 Curriculum Development (3 credits)—Study of the total school curriculum (K-12) with emphasis on development and organization.

CUAI 5215/6215 Scholarship of Teaching I (3 credits)—*Corequisite(s): 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 Scholarship of Teaching II (3 credits)—*Prerequisite(s): CUIAI 5215 and 6555. Corequisite(s): ELPA 6556.* Documenting the Scholarship of Teaching II has been designed to address the development and presentation of 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) (summer)

CUAI 5400 Seminar in Classroom Management (3 credits) — *Prerequisites: All required MAT courses with the exception of CUIAI 5580. Corequisite: CUIAI 5580.* Seminar participants will focus on issues in classroom management and discipline, establishing an effective classroom, and practical applications of principles to specific routine and non-routine situations in K-12 classrooms. (fall, spring)

CUAI 5407 Integrating the Creative Arts: K-8 (3 credits)—*Prerequisite(s): Admission to Teacher Education.* Strategies for promoting the creative processes in children K-8 will be studied. Areas of focus will include visual arts, music, dance, and theatre. The importance of the arts in the development of children and their capacity for expression will be emphasized. The arts will lead to interdisciplinary study with authentic connections among and across other disciplines. (summer)

CUAI 5415 Block I: Communications (6 credits)—*Prerequisite(s): Admission to Teacher Education or permission of M. A. T. coordinators; EDFN 5405 and EDFN 5411. Corequisite(s): 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(s): Admission to Teacher Education or permission of M. A. T. program coordinators; Corequisite(s): 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 5417 Secondary School Curriculum and Methodology (3 credits) — *Prerequisite: Admission to Teacher Education. Corequisite: CUIAI 5427.* This course focuses on teaching and learning in secondary school and includes the study of curriculum and methodology suitable for a variety of learning styles. (fall, spring, summer)

CUAI 5419 Block I: Communications Field Experience (1 credit)—*Prerequisite(s): Admission to Teacher Education or permission of M. A. T. coordinators; EDFN 5405 and EDFN 5411. Corequisite(s): 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)—*Prerequisite(s): Admission to Teacher Education or permission of M. A. T. program coordinators; CUIAI 5405 and CUIAI 5411. Corequisite(s): 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)—*Prerequisite(s): Admission to Teacher Education or permission of M. A. T. program coordinators; CUIAI 5420. Corequisite(s): 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 5426 Guided Secondary School Clinical Field Experience I (1 credit) — *Prerequisite: Admission to Teacher Education. Corequisites: READ 5437 and CUIAI 5430.* This course provides students with 30 hours of field experience coupled with 30 hours of contact time in the classroom. Students build their teaching and planning skills and apply concepts learned in other courses to a classroom teaching experience. Students also complete an evaluative-level developmental portfolio. (fall, spring)

CUAI 5427 Secondary School Curriculum and Methodology Field Experience (1 credit)—*Prerequisite(s): Admission to Teacher Education. Corequisite(s): 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. (fall, spring)

CUAI 5430 Secondary Curriculum - Development, Practice, and Assessment (3 credits)—*Prerequisite(s): Admission to Teacher Education. Corequisite(s): 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. (fall, 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. (fall)

CUAI 5438 Secondary Clinical Field Experience II (1 credit) — *Prerequisite: Student must be admitted to teacher education. Corequisite: This course is taken concurrently with Content Area methods.* This course is a school-based clinical field experience. The course provides clinical field experiences in secondary school in appropriate content classrooms. (fall, spring)

CUAI 5440 Elementary School Curriculum and Assessment (3 credits) — *Prerequisite: EDFN 5420 or permission of instructor.* This course is designed to investigate issues and trends related to curriculum development and assessment in grades K-6. Students examine the structure, development, and changing nature of the K-6 curricula and examine the role of assessment as it supports teaching and learning. (fall, spring)

CUAI 5443 Reasoning Block II K-6 (6 credits) — *Prerequisite: READ 5441. Corequisite: CUIAI 5444.* 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 K-6 schools. (fall, spring)

CUAI 5444 Reasoning Block Clinical Field Experience K-6 (1 credit) — *Prerequisite: Students must be admitted to teacher education. Corequisite: CUIAI 5443.* This course is a school-based clinical field experience. The course provides clinical field experiences in elementary mathematics, social studies, and science classrooms (K-6). The candidate is provided with opportunities to assist a mentor teacher with instruction and student learning, planning and preparing instruction that integrates the content areas of mathematics, social studies, and science for the classroom, designing and planning a five day unit of instruction using an interdisciplinary theme infused with technology and multicultural education, and completing related mathematics, social studies, and science performance-based tasks. Pre-service teacher educators plan, implement, and evaluate integrated instruction appropriate for students of diverse backgrounds and abilities. (fall, spring)

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. (spring)

CUAI 5450 Middle School Curriculum and Assessment (3 credits) — *Prerequisite: EDFN 5420 or permission of instructor.* This course is designed to investigate issues and trends related to curriculum development and assessment of adolescents in the middle grades. Students examine the philosophy of middle grades education; the structure, development, and changing nature of the curriculum for grades 4-8; and the many facets of assessment for students grades 4-8. (fall, spring)

CUAI 5454 Teaching Middle Grades (408) Mathematics (2 credits) — *Prerequisites: Admission to teacher education, READ 5453, and READ 5452. Corequisite: CUIAI 5458 A minimum of 30 hours of field experience is included in this block.* This course addresses methodology and theories for teaching and learning mathematics in the middle grades (4-8), with attention paid to national standards, problem solving, diversity, current technologies, assessment, current issues in mathematics education, reflective teaching and learning, and the application of mathematics content to everyday life. (fall, spring)

CUAI 5455 Social Studies Methods for the Middle Grades (2 credits) — *Prerequisites: CUIAI 5400 and admission to teacher education. Corequisite: CUIAI 5458.* A study of content specific methodology for middle school social studies (grades 4-8). The course focuses on planning, instruction, assessment, teacher resources, technology, and classroom climate. Students design and implement learning experiences that incorporate meaningful uses of social studies concepts during field experiences as well as become familiar with the standards, pedagogy, and assessment in social studies. (Evaluative Level of the Teaching Portfolio is required.) (fall, spring)

CUAI 5457 English as a Second Language (ESL) Methods and Techniques (K-12) (2 credits)—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). (summer)

CUAI 5458 Guided Middle Grades Field Experience (1 credit)—*Corequisites: CUAI 5454 and SCED 5456.* A school site field experience course that addresses Tennessee technology standards for pre-service teacher educators. Students use and manage available technology and explore uses for teaching, learning, and assessment. The focus of the course promotes professional growth and productivity in the use of technology to support instruction in the middle grades reading/language arts classroom. The online D2L system will be used, supplemented by other methodology. Thirty hours of field work is required in an area school. The Evaluative Level Portfolio is required.

CUAI 5467 English as a Second Language (ESL) Curriculum Development (K-12) (2 credits)—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. (summer)

CUAI 5517 Math Methods for Early Childhood (3 credits)—*Prerequisite(s): Admission to Teacher Education and completion of all math requirements. Corequisites: This course is to be taken with CUAI 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. (fall, spring, summer)

CUAI 5537 Integrated Field Experience for Early Childhood (1 credit)—*Prerequisite(s): 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 CUAI 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. (as needed)

CUAI 5547 Emergent Literacy: PreK-4 (3 credits)—*Prerequisite(s): 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. (fall, spring, summer)

CUAI 5580 Enhanced Student Teaching for M. A. T. (9 credits)—*Prerequisite(s): Completion of all methods courses and permission of advisor. Corequisite(s): 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. (fall, spring)

CUAI 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. (spring)

CUAI 5700 Portfolio Development (3 credits)—*Prerequisite(s): Student should have completed a minimum of thirty (30) credit hours in the course of study prior to enrolling in the course or have permission of the instructor.* Presents an overview of the portfolio as an authentic assessment to document the scholarship of teaching and learning. It introduces educators to use of artifacts/products/teacher work samples as evidence of effective teaching and expands to include student work samples as supportive evidence of that effectiveness.

CUAI 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. (spring)

CUAI 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. (fall)

CUAI 5787 Methods of Teaching Vocational/Technology Education (3 credits)—*Prerequisite(s): 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. (fall)

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. (spring, even years)

CUAI 5957 Topics in . . . (1-6 credits)—*Prerequisite(s): 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. (as needed)

CUAI 5990 Readings and Research (1-6 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).

Digital Media (DIGM)

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. (spring)

DIGM 5147 Fundamentals of Character Animation (3 credits) —*Prerequisite(s): DIGM 2870 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.) (spring)

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. (spring)

DIGM 5617 Advanced Raster-Based Imaging (3 credits)—*Prerequisite(s): DIGM 1650 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.) (spring)

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. (fall)

DIGM 5627 Motion Tools II: Compositing (3 credits)—*Prerequisite(s): DIGM 2900 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.) (fall)

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 5637 Advanced Interaction Design (3 credits)—*Prerequisite(s): 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 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 5647 Advanced Animation (3 credits)—*Prerequisite(s): DIGM 2870 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 5656 Advanced 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 5657 Advanced Web Design (3 credits)—*Prerequisite(s): Digital Media Majors Only—DIGM 3000 or permission of instructor. Prerequisite(s): 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 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 5667 Advanced Product Design (3 credits)—*Prerequisite(s): 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 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. (fall)

DIGM 5817 3D Effects Animation (3 credits)—*Prerequisite(s): DIGM 3130 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.) (fall)

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. (spring, even years)

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 Digital Video 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. (spring)

DIGM 5827 Motion Tools III: Application (3 credits)—*Prerequisite(s): 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.) (spring)

DIGM 5876 Modeling and 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 and lighting.

DIGM 5877 Advanced Modeling & Lighting (3 credits)—*Prerequisite(s): 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 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. (spring)

DIGM 5887 Technical Direction for Animation (3 credits)—*Prerequisite(s): DIGM 3130 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.) (spring)

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(s): 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 interest.

DIGM 5915 Experimental Media II (3 credits)—*Prerequisite(s): 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(s): 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. (fall, spring)

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 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 thesis or culminating research project, MUST enroll for 3 credits of 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 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), and credit will not be applied to meet program requirements.

Early Childhood (ECED)

ECED 5167 Constructivist Inquiry Approach to Science and Math for Young Children (3 credits) — *Prerequisite: Admission to Teacher Education.* Teacher candidates will explore developmentally appropriate methods based on constructivist theory for promoting scientific and mathematical inquiry among children in early childhood settings. A field experience in an EC classroom will ground the learner's understanding. (fall, spring)

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. (fall)

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 placed 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. (spring)

ECED 5325 Constructivist Programs for Young Children (3 credits) — *Prerequisites: completion of two or more of the following courses: ECED 5210, ECED 5330, ECED 5344, ECED 5332.* This course provides an in-depth exploration of constructivist practice as defined by the National Association for Young Children which endorses developmental emphasis on learning through emotional, cognitive, social, and physical stages based on normal age stages, individual variation, and cultural influences. Various curriculum models will be studied. The Project Approach will be used as the framework for a field experience in an early childhood setting. Core principles of constructivist practice will be analyzed and used for assessing classrooms in the local area. (spring)

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). (fall)

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. (summer)

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. (summer; spring, odd years)

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). (summer 2010 and 2011)

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). (spring)

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. A 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 formal, informal and criterion-based tests. (fall)

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. (spring)

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. (fall)

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. (spring)

ECED 5347 Technology and Media in Inclusive Early Childhood Education (3 credits)—This course provides a comprehensive overview of media and technology use 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. The appropriateness of technology use, along with application of new technology and media for children ages birth through grade three will be reviewed. (fall, spring)

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. (summer, except 2011)

ECED 5356 Language and Literacy Development of Young Children (3 credits)—Theories of acquisition, research, and programs of language enrichment relating to years zero-eight will be studied. Study in language delay, enhancement, individualization, and resource management will also be included. (fall)

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. (spring)

ECED 5417 Curriculum Development for Young Children (3 credits)—*Prerequisites: ECED 4140, Admission to Teacher Education.* Curriculum development analyzes children's thinking as it influences curriculum design (lesson planning and unit development) in early childhood in the classrooms. Hands-on experiential activities will be emphasized to enhance the adult learners' understanding of Early Childhood social studies curriculum and the importance of meeting the national and state standards for social studies education, while also providing concrete examples for application with young children. Field participation in early childhood settings is required. (fall, spring)

ECED 5517 Family-School-Community Relations (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. (fall, spring)

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. Theory-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 1-3 grade sites. This field experience is also designed to meet the requirements for adding an ECE endorsement to an existing teaching license. (fall, spring)

ECED 5580 Student Teaching and Seminar in Early Childhood Education (PreK-3) (9 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. (fall, spring)

ECED 6100 Historical and Theoretical Basis for Early Childhood Education (3 credits)—This course is an in-depth investigation and critical analysis of early childhood education from early historical time to the 21st century. Focus is on changing perceptions and expectations of family and young children, establishing the relationship between past perceptions, current practices, and the rebirth of persistent ideas. This course will include the study of theorists and educators who have influenced the field and shaped both past and current practices. (fall)

ECED 6200 Implications and Current Trends in Typical and Atypical Development of Young Children (3 credits)—*Prerequisites: ECED 5210 and SPED 5500 or equivalent.* Research and in-depth discussion of theory and practice related to the growth and development of young children, including typical and atypical development. Emphasis will be on methods of studying behavior, implications of research for early childhood programs, blended practices, and current trends in serving children with diverse needs, ranging from children at-risk for school failure to children who demonstrate high levels of cognitive development. (fall)

ECED 6300 Social and Cultural Diversity in Children and their Families (3 credits)—Study of the research and theories relating to social and cultural diversity in children and their families as well as practical applications for early childhood professionals working with diverse populations. This course will include self-reflection and personal analysis of bias and stereotypes and the dynamics of prejudice, discrimination, and oppression. (fall)

ECED 6400 Seminar in Professional Development and Leadership (3 credits)—*Prerequisite: Completion of nine (9) semester hours of doctoral work in Early Childhood Education.* Research and in-depth discussion of theory and practice related to obtaining extramural funding, conducting scholarly research, and publication of research- and practice-related articles in peer-reviewed journals will be studied. Emphasis will be on methods of researching and investigating potential sources of extramural funding through grant initiatives and private corporations, writing for and submitting to peer-reviewed journals, and developing skills in working as a collaborative team in the grant writing process. (spring)

ECED 6600 Processes of Language and Literacy Learning (3 credits)—This course will focus on theory and research related to early communication through language and literacy, as a social, cultural, and political practice. Included is the study of social and educational policy issues and policy-making actions taken on behalf of literacy learning. Emphasis is on intersection of class, race/ethnicity, gender, and sexuality, as critical axes for understanding culturally-specific language and literacy practices, and as a basis for examining language development and literacy instruction rooted in the experiences of children. (spring)

ECED 6610 The Teaching and Learning Environment: Impact on Children, Families, and Teachers (3 credits)—*Prerequisite: ECED 5210 or equivalent.* This course will examine the environment and associated elements of design, arrangement, and layout, which influence young children, teachers, and their families. Current research on environments will be reviewed and applied to early childhood settings. Environmental scales, observations, facility plans, and emotional climate will be studied and used to gain advanced techniques for evaluating and enhancing environments for young children. (summer)

ECED 6620 Leadership Roles, Administration, and Supervision in Early Childhood Education (3 credits)—*Prerequisites: ECED 6100 and ECED 6300.* Analysis of the meaning and development of leadership, assessment of leadership skills, and early childhood leadership roles will be studied in this course. The science of leadership will be explored through empirically based analysis of: strategic thinking; consensus building; creating change; and influencing better outcomes for children, families, and the profession. Focus on advocacy, collaboration with schools, mentorship, and building of relationships at the local, state, and national levels will be explored. (fall)

ECED 6630 Paradigms of Inquiry-Based Constructivism (3 credits)—*Prerequisites: ECED 6100 and ECED 6200.* This course explores the application of constructivism in teacher development, the early childhood classroom, and research related to inquiry, with specific focus on early childhood education. The focus of this class will include critical thinking, research skills, as students gain skills and methods of interpreting scholarly literature. (spring)

ECED 6640 Critical Analysis of Brain Research and Creativity Theory (3 credits)—*Prerequisite: ECED 5210 or equivalent.* This course examines the tenets of brain research and creativity theories within the context of their applications to the field of early childhood research and practice. Focus will include strategies for pedagogy based on physiological foundations "brain-based" teaching and learning, applying creativity, as well as investigating the roles of "brain-based" learning strategies and creativity within a variety of professions related to early childhood education. These settings include the early childhood classroom, teacher education, and teaching and learning in related professional venues (museums, education magazines, educational departments of organizations, etc.). (summer)

ECED 7000 Apprenticeship in Research (3 credits)—(*Faculty member oversees apprenticeship.*) *Prerequisites:* ELPA 7810, ELPA 7811, ELPA 7812, and ECED 7814. This required Research apprenticeship of at least 150 hours of field experience offers a collaborative apprenticeship for early childhood students to learn the skills necessary to plan, implement, and conduct research. The research apprenticeship provides opportunities for application of the research process in collaboration with a faculty member who will provide guidance. (fall, except 2009)

ECED 7001 Apprenticeship in University Teaching (3 credits)—*Prerequisite:* Completion of nine to twelve (9-12) semester hours of doctoral work in *Early Childhood Education*. The University Teaching Apprenticeship of at least 150 hours of field experience includes a mentored experience for the student in teaching a university-level course in early childhood education. Extensive work in the university classroom and reflection under the direction of a practicing faculty member from the department is required. (fall, spring, summer of 2013 only)

ECED 7002 Apprenticeship in Development of Teachers (3 credits)—*Prerequisite:* ECED 6100. The Development of Teachers apprenticeship of at least 150 hours of field experience requires the doctoral student to participate in the development, implementation, and evaluation of training for early childhood teachers who are currently working in the field. The training will be specifically designed for teachers working with children from birth to age eight and developed in collaboration with a mentor who has experience in effectively working with adult learners. (spring, summer)

ECED 7003 Apprenticeship in Early Intervention (3 credits)—*Prerequisite:* ECED 6200. The Early Intervention apprenticeship of at least 150 hours of field experience requires the doctoral student to work hands-on with a service coordinator or early interventionist in a setting that serves children birth to age three with developmental disabilities and their families. The student will assist with family programming, helping with on-going assessment and Individual Family Service Plan (IFSP) development, and provide home-based developmentally appropriate individual activities for the child. (spring; summer, odd years)

ECED 7004 Apprenticeship in Early Childhood Leadership (3 credits)—*Prerequisite:* ECED 6620. The Early Childhood Leadership apprenticeship of at least 150 hours of field experience requires the doctoral student to experience an early childhood leadership role with a principal of a Pre-K-3 or Pre-K-5 school, a museum director, a director of an NAEYC-accredited early childhood center, a Pre-K coordinator, a leader in a professional early childhood organization, or a leader in a community-based organization that provides services or advocacy for young children birth to 8 years of age. (fall, spring, summer)

ECED 7814 Analysis and Interpretation of Research Designs (3 credits)—*Prerequisites:* ELPA 7810, ELPA 7811, and ELPA 7812. This course explores the philosophy, logic, methods, research designs, and data analysis approaches of applied research in child development and learning. The course will discuss the scientific logic (e.g., inductive and deductive logic, the role of theory in research) of research methods and designs, including a discussion of how to develop research questions and hypotheses with particular emphasis on those questions dealing with applied research in child development and learning in both typical and atypical populations. (spring)

ECED 7950 Advanced Research in Early Childhood Education and Seminar (3 credits)—*Prerequisites:* ELPA 7810, ELPA 7811, and ELPA 7812. This is a research-oriented course that focuses on early childhood education. The course is a study of early research and the application of research to early childhood theory and practice. During this course, students will write a research proposal that is pre-prospectus related to their dissertation topic. The seminar aspect of this course will involve the student's attendance at prospectus and/or dissertation presentations of doctoral students. (fall beginning 2010)

ECED 7960 Dissertation (3-6credits)—*Prerequisite:* Permission of instructor. Supervised research toward dissertation (repeatable up to 12 hours). (fall and spring, odd years beginning spring 2011)

Economics (ECON)

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)—*Prerequisite(s):* 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 5317 Health Care Economics (3 credits)—*Prerequisite(s):* 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)—*Prerequisite(s):* 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)—*Prerequisite(s):* ECON 2210 or ECON 1050. 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 5447 Urban and Regional Economics (3 credits)—*Prerequisite(s):* 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)—*Prerequisite(s):* 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 5510 Current Social and Economic Issues (3 credits)—*Prerequisite(s):* ECON 5110 and 5240. A description and analysis of present-day socioeconomic problems, programs, and policies.

ECON 5527 International Economics (3 credits)—*Prerequisite(s):* 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 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.

ECON 5957 Topics in Economics (1-6 credits)

Education Foundations (EDFN)

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. (fall, spring)

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 Current Issues in Education Seminar (3 credits)—*Corequisite(s):* Enrollment in CUI 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. (fall, spring)

EDFN 5405 The Profession of Teaching (1 credit)—*Prerequisite(s):* Admission to teacher education or permission of the M. A. T. program coordinators. *Corequisite(s):* 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 in Education (3 credits)—History and philosophy underlying development of the American education system.

EDFN 5411 Exploring Schools (3 credits)—*Prerequisite(s):* Admission to teacher education or permission of the M. A. T. program coordinators. *Corequisite(s):* 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 5420 Foundations in Education: Building a Community of Learners (4 credits) — This is a graduate-level course that focuses on introducing the learner to the foundations of education, and the place of curriculum and instruction within these foundations. It focuses on the current context of education as well as develops an historical perspective. Contexts of education will include teachers, students, families, and community. Characteristics of successful teachers, their students, and the context within which education takes place are discussed. This course is required of all MAT candidates and must be taken in their first semester in the program; it includes 30 hours of field experience in areas of the students choosing - either K-6 (for those pursuing elementary licensure), 4-8 (for those pursuing middle school licensure), or 7-12 (for those pursuing secondary licensure). This class also includes an overview of the MAT program and initial advisement for beginning students. (fall, spring)

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. (fall, spring)

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. (fall, spring)

EDFN 6906 Independent Study in Foundations of Education (1-3 credits)—This course provides for independent study under the direction of an appropriate faculty member. Significant research required.

Educational Leadership and Policy Analysis (ELPA)

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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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. (fall, summer)

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)—*Prerequisite(s): 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. (fall, spring)

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 Effective Organizational Cultures (3 credits)—*Prerequisite(s): ELPA 6450 or permission of instructor.* Students will study the elements that contribute to the development of effective organizational. 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. (fall)

ELPA 6555 Reflective Practice I (3 credits)—*Corequisite(s): 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)—*Prerequisite(s): CUA1 5215 and ELPA 6555; Corequisite(s): 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. (fall)

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. (fall, spring, summer)

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. (spring, summer)

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. (summer)

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 Management (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 (3 credits)—*Prerequisite(s): 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. (fall, spring, summer)

ELPA 6874 Current Issues in Distance Education (3 credits)—This Internet-based seminar will explore 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 consortial efforts to deliver distance education programs.

ELPA 6901 Independent Study in Educational Administration (1-3 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 (1-3 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 (1-3 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 (1-3 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 (1-3 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(s): EDFN 5950 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(s): EDFN 5950 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. (fall, spring)

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. (fall)

ELPA 6954 Educational Program Evaluation (3 credits)—*Prerequisite(s): 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. (spring, summer)

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. (fall, spring)

ELPA 7811 Quantitative Research (3 credits)—*Prerequisite(s): 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. (spring, summer)

ELPA 7812 Qualitative Research (3 credits)—*Prerequisite(s): 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. (fall, spring, summer)

ELPA 7813 Research in Educational Leadership (3 credits)—*Prerequisite(s): 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. (fall, spring, summer)

ELPA 7814 Advanced Qualitative Research (3 credits)—*Prerequisite: ELPA 7812.* This course is designed to build on the introductory knowledge of ELPA 7812, Qualitative Research, with an in-depth examination of the five traditions of qualitative inquiry; those traditions are biography, ethnography, phenomenology, case study, and grounded theory. (spring)

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. (fall)

ELPA 7822 Higher Education Law (3 credits) — This course provides an examination of the legal issues that impact and influence American higher education. The objective of this course is to provide students with an overview of the subject areas of law most relevant to higher education and to introduce students to methods of legal analysis and decision-making. The course will emphasize the legal environment of postsecondary institutions, legal processes, analysis, and problems incurred in the administration of colleges and universities. (spring)

ELPA 7823 Higher Education Finance (3 credits) — This course provides students with an overview of the financial management of two-year and four-year colleges and universities. Students learn about the financial reporting, budgeting, and asset management processes for higher education institutions. Additionally, students examine contemporary funding issues for public and private postsecondary institutions. (spring)

ELPA 7960 Doctoral Dissertation (1-12 credits)—By arrangement with student's graduate committee. (fall, spring, summer)

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 dissertation 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). (fall, spring, summer)

English (ENGL)

ENGL 5017 Children's Literature (3 credits)—History, genres, methods of presentation: emphasis on sources of criticism and bibliography.

ENGL 5019 Supervised Experience in Teaching (1-3 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 (1-3 credit)—For Graduate Assistants with research assignments.

ENGL 5039 Supervised Experience in Administration (1-3 credit)—For Graduate Assistants with administrative assignments.

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 5060 Literature of Southern Appalachia (3 credits)—Selected writings of outstanding regional authors.

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(s): 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 5150 Sound Systems of English (3 credits) — Study of the sound systems of English and how they compare to the sounds and sound patterns of other languages.

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 5190 Second Language Acquisition (3 credits)—This course equips students to think critically about assumptions, research, and ideology in second language acquisition. We consider the learning processes of second language learners and the way SLA theory fits into teaching philosophy and methodology.

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 a cultural and historical context.

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 5250 18th-Century British Novel (3 credits)—Study of major British novelists of the long 18th-century, usually including Behn, Defoe, Richardson, Fielding, Austen and 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 19th-Century British Novel (3 credits)—Study of major 19th-century British novelists, usually including Austen, Dickens, Eliot, among others.

ENGL 5417 Teaching English in High 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 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 5507 Literature in Film (3 credits)—Film adaptations of significant literary works.

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 II (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 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(s): 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 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 5917 Creative Writing II: Poetry (3 credits)—*Prerequisite(s): ENGL 3141 or permission of the instructor.* Advanced course in writing of poetry. Considerable attention to craft and form of poems written by acknowledged masters of the genre.

ENGL 5920 Studies in English Education (1-4 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 5957 Special Topics in English (1-6 credits)—Selected topics in the discipline. Can be repeated for credit when content changes.

ENGL 5960 Thesis in English (Required) (1-3 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 (1-3 credits)—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.

Technology (ENTC)

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. (summer)

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 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 5037 Quality Assurance I (3 credits)—*Prerequisite(s): 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(s): 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 5050 Leading Continuous Improvement (3 credits)—*Prerequisite(s): 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. (summer, odd years)

ENTC 5060 Scheduling for Project and Quality Management (3 credits)—*Prerequisite(s): 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 5070 Leading Empowered Problem Solving Teams (3 credits)—*Prerequisite(s): 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. (summer, even years)

ENTC/BADM 5170 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. (fall, odd years)

ENTC 5217 Tool Design (4 credits)—*Prerequisite(s): 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(s): 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(s): 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. (spring, even years)

ENTC 5307 Telecommunications (4 credits)—*Prerequisite(s): 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(s): 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. (fall)

ENTC 5347 Digital Signal Processors (4 credits)—*Prerequisite(s): 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. (spring)

ENTC 5417 Construction Financing & Administration (3 credits)—*Prerequisite(s): 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 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 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 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.

ENTC 5630 Project Management (3 credits)—*Prerequisite(s): 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. (fall, even years)

ENTC 5640 Innovative Entrepreneurship (3 credits)—*Prerequisite(s): 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. (spring, even years)

ENTC 5717 Computer Assisted Numerical Control Programming (3 credits)—*Prerequisite(s): 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 5800 Strategic Experience (3 credits)—*Prerequisite(s): 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. (spring)

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. (fall)

ENTC 5957 Topics in... (1-6 credits)—*Prerequisite(s): 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.

ENTC 5960 Thesis 1-(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 (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 assignments. Students may alternate between periods (usually two semesters) of full-time study and employment with a cooperative education employer. Credit received will not apply to degree requirements. Students may receive compensation as full-time employees.

Environmental Health (ENVH)

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. (Offered fall)

ENVH 5200 Environmental Chemistry (4 credits)—*Prerequisite(s): 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. (Alternate years)

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 5250 Environmental Microbiology (4 credits)—*Prerequisite(s): 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. (Alternate years)

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(s): CHEM 2010/2011 and HSC 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 Environmental Health (4 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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 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 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 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 5727 Hazardous Waste Operations 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. (Offered summer)

ENVH 5760 Industrial Ventilation (3 credits)—*Prerequisite(s): ENVH 5700 or permission of the instructor.* 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. (Alternate years)

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. (Alternate years)

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. (Offered each term)

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 (1-3 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). (Offered each term)

ENVH 5989-99 Cooperative Education (1-3 credits)—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)

Family and Consumer Sciences (FACS)

FACS 5167 Practicum in Early Childhood Development (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 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 5417 Food Systems Operations (3 credits)—*Prerequisite(s):* *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.

FACS 5420 Maternal-Child Nutrition (3 credits)—*Prerequisite(s):* *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.

FACS 5421-5422 Lifespan Nutrition Practicum I and II (2 credits each)—*Prerequisite(s):* *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 elderly nutrition programs. A minimum of 24 hours/week of experience in area health care facilities is required.

FACS 5427 Diet in Disease (I) (3 credits)—*Prerequisite(s):* *FACS, 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 5430 Complex Adult Nutritional Care (4 credits)—*Prerequisite(s):* *Admission into program or consent of instructor.* An in-depth study of the pathology, assessment, diagnosis and medical nutrition therapy related to diabetes mellitus, cardiovascular disease, diseases of the gastrointestinal tract, liver and accessory organs of digestion. Will cover basic formulation of tube feedings. Will also briefly cover nutrition care process, screening, assessment, nutrition diagnosis and intervention.

FACS 5431-5432 Medical Nutrition Therapy Practicum I and II (2 credits each)—*Prerequisite(s):* *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.

FACS 5437 Diet in Disease (II) (3 credits)—*Prerequisite(s):* *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 Nutritional Biochemistry (3 credits)—*Prerequisite(s):* *FACS 3465, HSCI 3020 or departmental approval.* A study of nutrition as the science that integrates life processes from the cellular level 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 5450 Advanced Nutrition Therapy (3 credits)—*Prerequisite(s):* *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)—*Prerequisite(s):* *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.

FACS 5457 Nutrition Education (3 credits)—*Prerequisite(s):* *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 5460 Capstone Research Project (3 credits)—*Prerequisite(s):* *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 5467 Quantity Food Procurement and Production (4 credits)—*Corequisite(s):* *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(s):* *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.

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(s):* *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)—*Prerequisite(s):* *This course is a prerequisite for a summer Study Tour; six hours earned in FACS and consent of the instructor.* 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)—*Prerequisite(s):* *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 (1-6 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.

FACS 5960 Thesis (1-6 credits)—(every)

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.

Family/Community Nursing (FCNU)

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 5021 Life Span Assessment and Clinical Management: Women's Health (2 credits)—*Prerequisite(s):* *ALNU 5009 and 5010 and PMNU 5000; Prerequisite(s)/Corequisite(s):* *ALNU 5016 and 5018.* 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)—*Prerequisite(s):* *ALNU 5009, ALNU 5010 and PMNU 5000. Prerequisite(s)/Corequisite(s):* *FCNU 5021, ALNU 5016, ALNU 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)—*Prerequisite(s):* *ALNU 5009, ALNU 5010 and PMNU 5000. Prerequisite(s)/Corequisite(s):* *ALNU 5016 and ALNU 5018.* 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(s):* ALNU 5009, ALNU 5010 and PMNU 5000; *Prerequisite(s)/Corequisite(s):* FCNU 5023, ALNU 5016, and ALNU 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 5037 Community Concepts for Public Health Nurses (3 credits)—*Prerequisite(s):* Licensed Registered Nurse or permission of the instructor. This course is primarily designed 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. (summer)

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, summer)

FCNU 5220 Population-Based Clinical Nursing Care (3 credits) —*Prerequisite:* Admission to the Graduate Program. Students will have the opportunity to use population-based science including biostatistics and epidemiology to explain patterns of health and illness. Students will learn to use aggregate data sets to assess needs of a select population, develop nursing interventions, and evaluate the quality of client care. (spring)

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. (spring)

FCNU 5807 Global Health Issues (3 credits)—*Prerequisite(s):* 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. (summer)

FCNU/PMNU/ALNU 5900 Independent Study (1-6 credits)—*Prerequisite(s):* Admission to the School of Graduate Studies. 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. (fall, spring)

FCNU 5907 International Primary Health Care Practicum (3 credits)—*Prerequisite(s):* 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. (summer)

FCNU 5950 Internship in Advanced Nursing Practice (4 credits)—*Prerequisite(s):* All required didactic and 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, summer)

FCNU/ALNU/PMNU 5957 Special Topics in Nursing (1-6 credits)—*Prerequisite(s):* 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. (fall, spring)

FCNU/ALNU/PMNU 5960 Thesis (1 - 6 credits)—(fall, spring)

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). (fall, spring)

FCNU 6014 Measurement of Clinical Outcomes (3 credits)—*Prerequisite(s):* FCNU 6030 and PMNU 6040. This course is designed to help students develop skills in systematic evaluation, and development of clinical outcome measures in order to improve health. (summer)

FCNU 6016 Collaborative Approaches to Practice (3 credits)—*Prerequisite(s):* Admission to the doctoral program. 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 quantitative methodology. (fall)

FCNU/ALNU/PMNU 6960 Doctoral Dissertation (1-12 credits)—*Prerequisite(s):* Successful completion of Qualifying Examination. Supervised research toward dissertation. (fall, spring, summer)

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 not be appropriately covered by other types of independent study. (fall, spring, summer)

Finance (FNCE)

FNCE 5000 Essentials of Finance (3 credits)—*Prerequisite(s):* 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 5447 Banking and Financial Intermediation (3 credits)—*Prerequisite(s):* FNCE 3220 and ECON 3310. The working of financial markets and institutions with special reference to banking.

FNCE 5470 Seminar in Finance (3 credits)—*Prerequisite(s):* BADM 5430. Selected topics in finance.

FNCE 5490 Security Analysis and Portfolio Management (3 credits)—*Prerequisite(s):* BADM 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 5597 International Financial Management (3 credits)—*Prerequisite(s):* 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 5600 Case Studies in Banking (3 credits)—*Prerequisite(s):* 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 5617 Applied Equity Valuation (3 credits)—*Prerequisite(s):* FNCE 3300 or BADM 5430. 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)—*Prerequisite(s):* 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 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.

FNCE 5957 Topics in Finance (1-6 credits)—*Prerequisite(s):* Senior. This course gives students an opportunity to study special problems and new developments in the field of finance.

French (FREN)

FREN 5017 Advanced French Grammar (3 credits)—*Prerequisite(s): 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 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.

FREN 5957 Topics in French (1-6 credits)—*Prerequisite(s): Permission of the instructor.* This course gives students an opportunity to study special problems and new developments in the field of French.

Geography (GEOG)

GEOG 5000 Quantitative Techniques (3 credits)—Statistical and mathematical analysis of spatial distributions and areal data. (fall and spring, even years)

GEOG 5007 Geography of the United States (3 credits)—A regional study of the physical and cultural elements of the United States. (fall, odd years; spring, even years)

GEOG 5010 Location Theory (3 credits)—Classical and contemporary theories concerned with the spatial organization of population and economic activity.

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. (Spring, even years)

GEOG/JURBS 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. (spring, even years)

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 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. (spring, even years)

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 5217 Geographic Information Systems (3 credits)—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. (fall)

GEOG 5227 Remote Sensing (3 credits)—A systematic treatment of elements involved in interpreting, measuring, and mapping of images that appear on aerial photographs. (fall)

GEOG 5237 Advanced Remote Sensing (3 credits)—*Prerequisite(s): 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. (spring, even years)

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. (fall, spring)

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 5317 Advanced Geographic Information Systems (3 credits)—*Prerequisite(s): GEOG 5217.* A critical 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. (spring, even years)

GEOG 5320 Geographic Information Systems Projects (3 credits)—*Prerequisite(s): 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 5417 The Teaching of Geography and Earth Science (3 credits)—*Prerequisite(s): Admission to M. A. T. 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. (fall, spring)

GEOG 5807 Advanced Field Methods in Geography (3 credits)—A study of methods of measuring, recording, and synthesizing field data in geography.

GEOG 5907 Independent Studies (1-3 credits)—*Prerequisite(s): Permission of department chair is required.* Repeatable.

GEOG 5957 Topics in Geography (1-6 credits)—*Prerequisite(s): 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

GEOG 5960 Thesis in Geography (1-3 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 (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 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.

Geology (GEOL)

GEOL 5100 Lower Vertebrate Paleontology (4 credits) — *Prerequisites: GEOL 1050, GEOL 3395, and BIOL 1120, or permission of instructor.* This course covers "lower" vertebrate (fish, amphibians, and reptiles) evolution through time and discusses how it is (and has been) interpreted from the fossil record. In addition, new theories and recent discoveries will be addressed (specifically, their relevance to past and current thinking). Two 1-hour lectures and two 3-hour labs weekly. (fall, even years)

GEOL 5150 Higher Vertebrate Paleontology (4 credits) — *Prerequisites: GEOL 3395 or permission of instructor.* This course covers "higher" vertebrate (birds and mammals) evolution through time and discusses how it is (and has been) interpreted from the fossil record. In addition, new theories and recent discoveries will be addressed (specifically, their relevance to past and current thinking). Two 1-hour lectures and two 3-hour labs weekly. (fall, odd years)

GEOL 5307 Field Methods in Paleontology (3 credits) — *Prerequisite: GEOL 3395 or permission of instructor.* The goal of this course is to prepare students for fieldwork on established paleontological sites. The focus of each class will be the Gray Fossil Site in Washington County, TN, but additional Pleistocene sites from the region will also be utilized. Four days in the field and one day in the classroom, weekly.

GEOL 5350 Statistical Methods in Paleontology (3 credits) — *Prerequisite: MATH 2010 or permission of instructor.* This course will introduce students to the mathematical and analytical procedures most commonly used in paleontology. Although there are many, the focus will be on those most relevant to vertebrate paleontology (because of the Gray site and other local Pleistocene sites). Three 1-hour lectures weekly. (fall, even years)

GEOL 5587 Engineering Geology (4 credits)—*Prerequisite(s): 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. (fall, odd years)

GEOL 5617 Structural Geology (4 credits)—*Prerequisite(s): 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. (fall, odd years)

GEOL 5700 Geology Seminar (1 credit) — This class seeks to teach scientific reasoning and critical thinking by discussing and debating current topics in geology (including, but not restricted to, natural resources, natural history, and natural hazards). Students will be encouraged to "pick sides" and support their position through the synthesis of the selected readings, self-chosen additional readings, and personal/educational experience. One lecture/discussion weekly.

German (GERM)

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 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.

GERM 5957 Special Topics in German (3 credits)—*Prerequisite(s): Permission of the instructor.* This course gives students an opportunity to study special problems and new developments in the field of German.

GRAD

GRAD 7800 Faculty Technology Leadership I (3 credits) — This course supports faculty who are interested in integrating technology with education. Course content includes the use of course management system applications, multimedia applications, and applications required for efficient and effective delivery of electronic course materials. Production and incorporation of a multimedia learning unit into a course is the capstone project for this course.

GRAD 7810 Faculty Technology Leadership II (3 credits) — This course builds on the skills of GRAD 7800 to support faculty interested in the creation of Web-based and Web-enhanced courses. Course content includes the use of advanced course management system applications, Web-based and Web-enhanced pedagogies and mechanics as well as principles of Web-based course design. Production of a Web-based or Web-enhanced course will be the final project for this course.

Counseling (HDAL)

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. (spring, even years)

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 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 divorce 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. (spring)

HDAL 5150 Career Development: Theory, Research and Practice (3 credits)—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)

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. (fall, spring)

HDAL 5230 Advanced Developmental Psychology (3 credits)—A survey of the principles of human development throughout the life span. (fall, summer)

HDAL 5250 Counseling in Community Agencies (3 credits)—*Prerequisite(s): An understanding of psychology terminology.* 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)

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)—*Prerequisite(s): 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(s): 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)—This course will address couple development and dynamics that contribute to difficulties in relationships. Therapeutic approaches for intervening with couples will be examined. (fall and of 2009 and 2010; spring only beginning 2011)

HDAL 5423 Postmodern Approaches to Family Therapy (3 credits)—*Prerequisite(s): 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, may move to fall)

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 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. (spring, summer)

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. (fall)

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(s): 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. (fall)

HDAL 5562 Counseling II (3 credits)—*Prerequisite(s): 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 5563 Advanced Counseling Techniques with Children (3 credits)—*Prerequisite(s): HDAL 5561 and HDAL 5562, or their equivalents.* This course assumes a foundation of basic skills for counseling children has been attained. Through lecture, role-play, video feedback and the use of creative (expressive) arts, students are provided an in-depth experience in skill development using individual and small group counseling and therapy, play therapy, and family interventions, including parent education. (cohort only)

HDAL 5570 Supervised Counseling Practicum (3 credits)—*Prerequisite(s): Admission to program, permission of instructor, HDAL 5100 (except Marriage and Family Therapy), 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. (fall, spring)

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(s): 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. (spring only, every two years)

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. (fall only, every two years)

HDAL 5810 Psychological Assessment in Counseling (3 credits)—A study of psychometrics, test construction, and interpretation of results for major assessment instruments used in community mental health and school systems. Students will become familiar with assessment instruments and be able to critically evaluate them. Upon completion of this course, students will be able to utilize test results in diagnosis and evaluation across settings. (fall)

HDAL 5820 Psychological Assessment (3 credits)—*Prerequisite(s): 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. (summer)

HDAL 5825 Developmental Psychopathology for Counselors (3 credits) —*Prerequisite: Permission of instructor.* This course addresses the dangers of psychological labeling and pathologizing clients while also teaching professional processes for diagnosis, using the DSM-IV-TR (2000), case conceptualization, and therapeutic treatment planning. Common diagnoses applied to children, adolescents, and adults are considered from both individual and systemic perspectives. (summer)

HDAL 5830 Individual Mental Testing (Also Psychology 5830) (4 credits)—*Prerequisite(s): 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 (1-6 credits)—*Prerequisite(s): 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. (fall, spring, summer)

HDAL 5957 Special Topics in Human Development and Learning (1-6 credits)—(initial class, fall; advanced class, spring)

HDAL 5960 Thesis (1-3 credits)—*Prerequisite(s): 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).

HDAL 5563 Advanced Social and Cultural Foundations of Counseling (3 credits)—*Prerequisite(s): HDAL 5110 or its equivalent.* This course is designed for students in the helping profession to develop advanced competencies for counseling intervention with diverse populations. Students will learn specific theories and techniques for counseling multicultural populations. Special attention will be given to working with minority, non-dominant, and oppressed populations. (cohort only)

HDAL 6585 Trauma and Recovery (3 credits)—This course will address various counseling approaches to working with clients who have been exposed to traumatic events. The traumatic events may include, but not be limited to, events such as automobile accidents, surgeries, bullying behavior, natural disasters, violent crimes, terrorism, or domestic violence. Students will learn how to assess and intervene for trauma at an individual, group, and community level. (cohort only)

HDAL 6593 Advanced Internship and Supervision (3-6 credits)—*Prerequisite(s): Admission to the Ed. S. in School Counseling Program and HDAL 5880 or equivalent.* This advanced internship and supervision course is designed to provide a student with the opportunity to have a closely directed experience in supervising interns in the master's program in Counseling. The class is a seminar that addresses the theory and practice of supervision as well as providing a vehicle for working with clients and presenting supervisory experiences for discussion. (cohort only)

History (HIST)

HIST 5010 Studies in United States History (3 credits)—Directed research and readings in selected topics in the history of the United States. (every semester) May be repeated.

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 5020 Studies in European History (3 credits)—Directed research and readings in selected topics in European history. (every semester) May be repeated.

HIST 5030 Studies in World History (3 credits)—Directed research and readings in selected topics in the history of areas other than the United States or Europe. (every semester) May be repeated.

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 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 Era (3 credits)—An advanced course in the history of the Civil War Era with emphasis upon secession; economic and military mobilization; battles and campaigns; and the cultural, diplomatic, and political developments in the period from 1840 to 1877.

HIST 5097 The Emergence of the United States 1865-1933 (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.

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, Palestine, Greece and Rome.

HIST 5247 History of Women in U.S. 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 (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 European Intellectual History (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 (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. The principal focus of this class may vary.

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 Women Since 1945 (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.

HIST 5847 American Sports 20th Century to Present (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 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 (1-3 credits)

HIST 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).

HIST 5989-99 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 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.

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 Topics in... (1-6 credits)—*Prerequisite(s): 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 (HSCI)

HSCI 5067 Neurology (4 credits)—*Prerequisite(s): 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 5100 Pathogenic Microbiology (2 credits)—*Prerequisite(s): 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(s): 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(s): 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(s): 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(s): Introductory Virology.* A discussion of current areas of animal virus research with emphasis on newer research techniques. Three hours lecture per week. (fall)

HSCI 5607 Bacterial Physiology (4 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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 5900 Independent Studies (1-4 credits)—*Prerequisite(s): 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 (1-6 credits)—*Prerequisite(s): 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 (1-3 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 (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 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)

Interdisciplinary Gerontology (IDGE)

IDGE 5000 Introduction to Normal Aging: 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 (JOUR)

JOUR 5107 Reporting Public Affairs (3 credits)—*Prerequisite(s): 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 5900 Independent Study in Journalism (1-3 credits)

JOUR 5957 Topics in Journalism (1-6 credits)

Kinesiology, Leisure and Sport Sciences (KLSS)

PEXS 5032 Motor Development Assessment and Programming (3 credits)—*Prerequisite(s): 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. (fall, even years)

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. (fall, odd years)

PEXS 5110 Curriculum Development (3 credits)—This course is designed to further the understanding of physical education instructors in the area of program planning. (fall, even years)

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 athletic programs. (spring, even years)

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. (fall, even years)

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. (spring, odd years)

PEXS 5460 Inclusion in Physical Education, Sport and Leisure Activity (3 credits)—*Prerequisite(s): 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 5467 Nutrition and Exercise (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.

PEXS 5470 Systematic Observation and Analysis of Instruction (3 credits)—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. (spring, odd years)

PEXS 5520 Instrumentation in Exercise and Sport Science (3 credits)—This course is designed to provide the student with an in-depth knowledge of the selection and operation of laboratory equipment used to measure performance, physiological and anthropometrical adaptations of the human body to exercise and sport training. Furthermore, students will analyze and report data collected from the various measurement techniques covered in this course. (spring, odd years)

PEXS 5540 Exercise Testing and Prescription (3 credits)—*Prerequisite(s): 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. (fall)

PEXS 5600 Sports Conditioning I (3 credits)—*Prerequisite(s): PEXS 4620 or equivalent.* Theoretical foundations and practical experiences for the development of the training process to improve sports performance. Topics include critical movements and strategies for developing and implementing strength and conditioning programs and periodized training.

PEXS 5610 Sport Physiology I: Muscle Metabolism and Hormonal Control (3 credits)—*Prerequisite: PEXS 3610 or equivalent.* A detailed assessment of the underlying mechanisms behind the acute physiological and biochemical responses to exercise, sport training, and sport performance as they relate to biochemical pathways, muscle physiology, neuromuscular control, endocrinology, and human performance. (spring)

PEXS 5620 Sport Physiology II: Cardiovascular and Respiratory Physiology (3 credits)—*Prerequisite(s): PEXS 4620 or equivalent.* Underlying mechanisms behind acute cardio-respiratory responses to exercise and chronic cardio-respiratory adaptations to sport training and sport performance for trained, detrained, and master athletes, including mechanism alterations associated with changing environments. (spring)

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 current research and innovative teaching strategies for the Tennessee Wellness Curriculum. (spring, even years)

PEXS 5657 Sports Nutrition and Ergogenic Aids (3 credits) — This course is designed to provide the student with an understanding of how to enhance athletic performance with proper nutrition. Examines principles of nutritionally sound diets for endurance, speed and strength-related activities. Special nutritional needs will also be discussed (e.g., gaining muscle mass or lowering body fat content).

PEXS 5670 Research Design and Analysis (3 credits)—This course will emphasize the design, analysis, and interpretation of research in the fields of kinesiology and sport management. Emphasis will be placed on comparing different research methods, statistical analysis techniques and interpretation as they relate to various topics in kinesiology and sport management. (fall, spring)

PEXS 5717 Secondary Physical Education (3 credits)—*Prerequisite(s): PEXS 2955, PEXS 3005, PEXS 3032, PEXS 3080, and admission to Teacher Education.* This course provides students with content knowledge and pedagogical skills necessary to teach lifetime activity in the secondary school.

PEXS 5800 Internship in Fitness/Exercise Physiology (3 credits)—*Prerequisite(s): 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 Physiology and Performance Concentration. (fall, spring)

PEXS 5911 Special Studies (1-3 credits)—This course is designed to provide 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. (fall, spring)

PEXS 5912 Special Studies (1-3 credits)—This course is designed to provide 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. (fall, spring)

PEXS 5957 Topics in... (1-6 credits)—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. (fall, odd years)

PEXS 5960 Thesis (3-6 credits)—A research project developed, written, and presented under the supervision and guidance of a faculty committee. This course is repeatable and six credit hours are required for the thesis option. (fall, spring)

PEXS 5961 Capstone Project (3 credits) — A major creative, research, or service project developed under the supervision and guidance of faculty. Students

will develop, write, and present a significant project that is logistically consistent with the concentration of study and utilized as part of their culminating experiences. (spring, even years)

PEXS 5977 Exercise Management (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. (fall)

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). (as needed)

PEXS 6270 Sport Biomechanics (3 credits)—This course develops a foundation in the theoretical and practical skills involved in biomechanics including basic mechanical principles and application to sport and other human movement activities; analyzing movement by qualitative and quantitative measurement of video sequences; identification of key faults; devising strategies for improving technique; and analyzing force plate data using computer software and explaining the significance of the results obtained. (spring, odd years)

PEXS 6280 Sport Skills and Tactics (3 credits) — Technical and biomechanical analyses of sport skills, exercises, and techniques. Appropriate scheduling of skills/techniques used in a periodized approach to sport training. Content will be applicable for high school to Olympic sport performances.

PEXS 6520 Instrumentation in Exercise and Sport Science (3 credits)—This course is designed to provide the student with an in-depth knowledge of the selection and operation of laboratory equipment used to measure performance, physiological and anthropometrical adaptations of the human body to exercise and sport training. Furthermore, students will analyze and report data collected from the various measurement techniques covered in this course. (fall, even years)

PEXS 6600 Sports Conditioning I (3 credits)—*Prerequisite(s):* PEXS 4620 or equivalent. Theoretical foundations and practical experiences for the development of the training process to improve sports performance. Topics include critical movements and strategies for developing and implementing strength and conditioning programs and periodized training. (fall, odd years)

PEXS 6610 Sport Physiology I: Muscle Metabolism and Hormonal Control (3 credits)— *Prerequisite:* PEXS 3610 or equivalent. A detailed assessment of the underlying mechanisms behind the acute physiological and biochemical responses to exercise, sport training, and sport performance as they relate to biochemical pathways, muscle physiology, neuromuscular control, endocrinology, and human performance. (fall, even years)

PEXS 6620 Sport Physiology II: Cardiovascular and Respiratory Physiology (3 credits)—*Prerequisite(s):* PEXS 4620 or equivalent. Underlying mechanisms behind acute cardio-respiratory responses to exercise and chronic cardio-respiratory adaptations to sport training and sport performance for trained, detrained, and master athletes, including mechanism alterations associated with changing environments. (spring, odd years)

PEXS 6680 Management Skills for Coaching (3 credits)—*Prerequisite(s):* PEXS 6600. In-depth study of the practical nature of coaching including the responsibility of coaches in the development of athletes, organization of practices, organization of competition, handling budgets, NCAA recruiting, and working with national governing bodies (NGB) and the USOC. (spring, even years)

PEXS 7000 Research Design and Statistics for Sport Science (3 credits)—*Prerequisite(s):* PEXS 5670 or equivalent. An in-depth study of the principles and methods of experimental design and data analysis as related to sport. The class includes discussions of experimental design dealing with hypothesis-generating research as well as true experimental designs. Comprehensive and detailed discussion of data analysis will include information related to validity, reliability, assessing variable relationships, and methods of determining statistical differences applicable to sport settings. Particular emphasis will be placed on understanding the importance of statistical analysis of athlete-monitoring programs and hypothesis-generating designs, including multiple single-subject designs and statistical process control analysis. (spring, even years)

PEXS 7010 Advanced Sport Nutrition and Ergogenic Aids (3 credits) — *Prerequisite:* PEXS 5657 or equivalent. Advanced study of the nutritional needs for various types of athletes and in-depth discussions of ergogenic aids: environmental, mechanical, psychological, nutritional, and pharmacological. Particular emphasis is placed on non-banned, safe and potentially effective aids that can enhance recovery and restoration including nutrient timing, vitamins, minerals, massage, ice therapy, and vibration. (spring, odd years)

PEXS 7020 Research in Sport Physiology I (3 credits) — *Prerequisite:* PEXS 6520, 6610 and 6620. Laboratory rotation course in which students actively participate in research of graduate faculty involving sport science projects. This course will acquaint the student with sport science monitoring and research from data collection to publication. Participants will attend and give research talks at weekly journal club meetings on topics from the current literature using the skills and knowledge acquired during the rotations.

PEXS 7030 Seminar in Sport Science and Performance I (3 credits) — Seminar for first-year students that includes research lectures by ETSU faculty, discussion of research methods and practice, and review of pertinent primary literature. (summer, odd years)

PEXS 7120 Research in Sport Performance (3 credits) — *Prerequisite:* PEXS 6520, 6610 and 6620. Laboratory rotation course in which students actively participate in research of graduate faculty involving sport performance (coaching) projects. This course will acquaint the student with sport performance monitoring and research from data collection to publication. Participants will attend and give research talks at weekly journal club meetings on topics from the current literature using the skills and knowledge acquired during the rotations. (summer, odd years)

PEXS 7400 Internship in Sport Physiology and Performance (3-9 credits) — *Prerequisite:* PEXS 6520 and PEXS 7000. Hands-on coaching experiences with established professionals crafted to fit the goals of the student. This course will provide the student with an opportunity to integrate and apply skills learned in research and in the classroom by working directly (coaching) with specific intercollegiate teams or working in specific laboratory settings involving athletes. Repeatable for up to 9 credits. (360 total contact hours) (spring, odd years; summer, even years)

PEXS 7420 Research in Sport Physiology II (3 credits) — *Prerequisite:* PEXS 7020. This course builds on the laboratory rotation course (PEXS 7020) in which students actively participate in research of graduate faculty involving sport science projects. This course will advance the students' skills and knowledge of specific sport science monitoring and research from data collection to publication with their chosen faculty advisor. Participants will attend and give research talks at weekly journal club meetings on topics from the current literature using the skills and knowledge acquired during the laboratory rotations. (fall, odd years)

PEXS 7430 Seminar in Sport Science and Performance II (3 credits) — *Prerequisite:* PEXS 7030. Seminars and colloquia on advanced topics in sport physiology and performance from scientists in the field and in related fields. The course includes a review of pertinent primary literature and in-depth discussion of research methods and practice. (summer, even years)

PEXS 7600 Sport Conditioning II (3 credits) — *Prerequisite:* PEXS 6600. Advanced study of sport conditioning and the integrated training process. Students integrate theory and practice of biomechanics, nutrition, and physiology to the development of a strength and conditioning program for a given athlete or sport. (spring, even years)

PEXS 7830 Seminar in Sport Science and Performance III (3 credits) — *Prerequisite:* PEXS 7430. This course is designed to evaluate the student's ability to develop and deliver research-related material. Content includes presentation of each student's research-in-progress for critique and an additional presentation of a literature review on another assigned topic. (fall, even years)

PEXS 7960 Dissertation (3-6 credits) — Original research leading to a dissertation approved and supervised by the student's graduate committee. Repeatable for up to 15 credits. (fall, even years; summer, odd years)

Language (LANG)

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 (MALS)

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. (fall, spring)

MALS 5100 Introduction to Interdisciplinary Study (3 credits)—An introduction to the nature and value of interdisciplinary study. Literature, scientific theory, critical theory, and/or social science, historical, and philosophical constructs may be brought to bear on the study of interdisciplinarity. (fall, spring)

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. (fall, spring)

MALS 5400 Seminar in Interdisciplinary Research (3 credits)—*Prerequisite(s):* 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. (fall, summer)

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 interdisciplinary required. (fall, spring, summer)

MALS 5950 Special Project in Liberal Studies (3 credits)—*Prerequisite(s):* MALS 5400. Written application of knowledge and understanding gained in the MALS program. A creative or performance component is acceptable. (fall, spring, summer)

MALS 5960 Thesis (3 credits)—*Prerequisite(s): MALS 5400.* A research project developed and documented under the supervision of a faculty committee. The research project is documented in the form of a thesis. (fall, spring, summer)

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). (fall, spring, summer)

Mathematics (MATH)

MATH 5010 Problem Solving (3 credits)—*Prerequisite(s): MATH 1420 or the equivalent.* Examination of concepts and principles in algebra and geometry through pattern recognition and problem solving. (fall, even years as needed)

MATH 5015 Probability and Statistics for K-12 Teachers (3 credits)—*Prerequisite(s): MATH 1530 or the equivalent.* Probability, simulation, sampling methods, elementary data analysis, statistical inference, correlation and regression, everyday use of statistics. (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 5027 Introduction to Applied Mathematics (3 credits)—*Prerequisite(s): MATH 2010, MATH 2110, and MATH 2120.* This course is an introduction to partial differential equations and their relationship to Fourier series, vector calculus, and special functions.

MATH 5040 Reasoning in Mathematics (3 credits)—*Prerequisite(s): 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 5047 Mathematical Statistics I (3 credits)—*Prerequisite(s): 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 5050 Analysis for Teachers (3 credits)—*Prerequisite(s): MATH 5040 or the equivalent.* A survey of elementary calculus extending to the fundamental concepts of analysis. (fall, odd years as needed)

MATH 5057 Mathematical Statistics II (3 credits)—*Prerequisite(s): 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.

MATH 5060 Algebra for Teachers (3 credits)—*Prerequisite(s): 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.

MATH 5090 Theory of Matrices (3 credits)—*Prerequisite(s): MATH 2010.* Vector spaces, linear transformations, matrices, and inner product spaces.

MATH 5127 Introduction to Modern Algebra (3 credits)—*Prerequisite(s): Mathematics 2010 and 2800.* Introduction to the basic algebraic systems, including groups, rings, integral domains, and fields. (fall)

MATH 5137 Introduction to Modern Algebra II (3 credits)—*Prerequisite(s): MATH 4127/5127.* The study of rings is continued to include topics of factor rings, ideals and factorization. The study of field theory is expanded to include extension fields and splitting fields, time permitting; Sylow theory is included.

MATH 5157 Introduction to Modern Geometry (3 credits)—*Prerequisite(s): 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 5210 Real Analysis I (3 credits)—*Prerequisite(s): MATH 4227 or 5227.* The real number system, sequences, functions, Lebesgue measure, measurable functions, the Lebesgue integral, differentiation. (fall, spring, even years)

MATH 5217 Analysis I (3 credits)—*Prerequisite(s): 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 5220 Real Analysis II (3 credits)—*Prerequisite(s): MATH 5210.* Classical Banach spaces, metric spaces, topological spaces, Riesz Representation theory, Hilbert spaces, general measure and integration. (spring, odd years)

MATH 5227 Analysis II (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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 5310 Differential Geometry (3 credits)—*Prerequisite(s): 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.

MATH 5327 Time Series Analysis (3 credits)—*Prerequisite(s): MATH 2050 or equivalent.* Methods for analysis of observations taken at equally spaced moments in time. Exploratory analysis of time series, decomposition approach, exponential smoothing and regression, time domain approach (ARIMA models), forecasting, introduction to the frequency domain approach, periodogram, and spectrum.

MATH 5330 Axiomatic and Transformational Geometries (3 credits)—*Prerequisite(s): MATH 1920, 2010, and 2800.* Axiomatic and finite geometries, Euclidean geometry (synthetic/analytic), transformational geometries, non-Euclidean and projective geometries

MATH 5337 Complex Variables (3 credits)—*Prerequisite(s): Mathematics 1920 and 2010.* Complex numbers and their algebra, complex differentiation and integration, analytic and elementary functions, residues, and power series. (spring)

MATH 5340 Graph Theory and its Applications (3 credits)—*Prerequisite(s): 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 5347 Introduction to Graph Theory and Its Applications (3 credits)—*Prerequisite(s): MATH 2800.* Topics include graph theory and applications, trees, planar graphs, graphical invariants, and networks.

MATH 5357 Introduction to Topology (3 credits)—*Prerequisite(s): MATH 2800.* Open and closed sets, continuous functions, metric spaces, connectedness/continuous functions, metric spaces, connectedness/compactness, the real line, and the fundamental group. (spring)

MATH 5410 Modern Algebra I (3 credits)—*Prerequisite(s): MATH 4127 or 5127.* Monoids, group theory, ring theory, modules over a principal ideal domain. (fall, spring, odd years)

MATH 5417 Teaching of Secondary Mathematics (3 credits)—*Prerequisite(s): 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 5420 Modern Algebra II (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): MATH 5340.* Advanced topics in graph theory will be presented. This course is designed to bring students to the forefront of current research in the field.

MATH 5510 Complex Analysis I (3 credits)—*Prerequisite(s): 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(s): 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)—*Prerequisite(s): 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(s): 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)—*Prerequisite(s): 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(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): 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)—*Prerequisite(s): MATH 1120, 2250, and CSCI 1250.* Methods of numerical computation and error control, interpolation, numerical integration and differentiation.

MATH 5860 Numerical Analysis II (3 credits)—*Prerequisite(s): 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.

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 5957 Special Topics in Mathematics (1-6 credits)—*Prerequisite(s): 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)

MATH 5960 Thesis (1-3 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).

Mass Communications (MCOM)

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 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 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 problems, audience analysis, creative writing for, or critical evaluation of the mass media.

MCOM 5957 Topics in Mass Communications (1-6 credits)

MCOM 5960 Thesis (3-6 credits)—*Prerequisite(s): 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).

Medical Education (MDED)

MDED 5010/6010 Biometry and Biomedical Computing I (3 credits)—*Prerequisite(s): 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(s): 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 Educational Technology (MEDA)

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. (fall)

MEDA 5400 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. (fall, spring, summer)

MEDA 5520 Essentials of Multimedia (3 credits)—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) (fall)

MEDA 5530 Computer-Based Authoring Systems (3 credits)—*Prerequisite(s): MEDA 5520; senior standing in Computer Science or permission of instructor.* 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. (spring)

MEDA 5540 Principles of Instructional Design and Production (3 credits)—*Prerequisite(s)/Corequisite(s): MEDA 5700 and MEDA 5530.* 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. (fall)

MEDA 5628 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. (variable) (spring)

MEDA 5635 Basic Reference Materials (3 credits)—This course provides an introduction to the basic types of reference sources, their evaluation, and use. (variable) (fall)

MEDA 5637 Young Adult Materials (3 credits)—This course will survey a wide variety of young adult literature in many formats. Students will preview materials for educational, informational, and literary use by young adults. Course will also cover literary genres, award-winning literature, popular authors, critical selection and analysis, and knowledge of age-level developmental stages. Emphasis will be the application in the school library media setting. (fall)

MEDA 5640 Multicultural Materials for Children and Young Adults (3 credits)—An introduction to the area of cross-cultural literature through the examination of cultural pluralism and prejudice as manifested in literature and media for youth. This course will survey a wide variety of children and young adult literature in many formats. Criteria for the evaluation of multicultural content and ways to introduce multicultural media into library programs will be explored. (summer)

MEDA 5680 Organizations 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. (fall)

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. (summer)

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.* (fall)

MEDA 5710 School Library Media Program Development and Management (3 credits)—*Prerequisite: MEDA 5720.* Roles, functions, and organization of school library media programs: administrative aspects, professional responsibilities, systematic program planning and evaluation, building instructional team partnerships with teachers and others, and integration of the library program into the curriculum. Management of operational aspects of school library media centers, including program development facilities, budget, personnel, materials, and equipment. *Field Experience Required: Ten (10) Hours.* (spring)

MEDA 5715 Instructional Role of the School Library Media Specialist (3 credits)—*Prerequisite(s): MEDA 5000.* 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)—An introduction to descriptive cataloging, classification, and subject analysis. Cataloging and processing book and non-book materials using integrated library system software. Emphasis will be on the organization of information in a school library environment. Classes will be a combination of lecture and in-class exercises. *Field Experience Required: Ten (10) Hours.* (fall)

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. (spring)

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.* (fall)

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. (summer)

MEDA 5900 Independent Study (1-3 credits)—(every semester)

MEDA 5925 Practicum/Internship/Enhanced Student Teaching (5 credits)—*Prerequisite: MEDA 5910.* The culminating experience for the School Library Media Concentration. The practicum experience involves student participation in a professional field work setting under the supervision of a designated on-site supervisor and the university practicum director. 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. The practicum is built on the standards set forth in *Information Power: Building Partnerships for Learning* (AASL/AECT, 1998) in four critical content areas: (1) Use of Information and Ideas, (2) Teaching and Learning, (3) Collaboration and Leadership, and (4) Program Administration. (fall, spring)

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. (fall, spring)

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. (fall)

MEDA 5957 Topics in Media Services (1-6 credits)—*Prerequisite(s): 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. (summer)

Management (MGMT)

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 Responsibility (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)—*Prerequisite(s): 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 5112 Supply Chain Management (3 credits)—*Prerequisite(s): 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 5217 Service Operations Management (3 credits)—*Prerequisite(s): 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(s): MGMT 3100.* 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)—*Prerequisite(s): CSCI 1010 and MGMT 3100.* 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/PUBH/PMNU 5401 Rural Health Issues (3 credits)—*Prerequisite(s): 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 5525 Health Services Delivery (3 credits)—*Prerequisite(s): 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 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.

MGMT/PMNU/PUBH 5530 Health Care Organizations and Law (3 credits)—*Prerequisite(s): 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. (fall)

MGMT/PMNU/PUBH 5550 Human Resources Management (3 credits)—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 5587 HRM Certification (3 credits)—*Prerequisite(s): 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/PMNU/PUBH 5590 Strategic Planning for Health Care (3 credits)—*Prerequisite(s): 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 5617 Small Business Management (3 credits)—*Prerequisite(s): 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(s): 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 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 5957 Topics in Management (1-6 credits)—*Prerequisite(s): 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.

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).

Microbiology (MICR)

MICR 5000/6000 Medical Microbiology (6 credits)—*Prerequisite(s): 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. (fall)

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. (fall, spring, summer)

MICR 5350/6350 Molecular Immunology (3 credits)—*Prerequisite(s): 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. (fall)

MICR 5362/6362 Molecular Virology (3 credits)—*Prerequisite(s): BIOM 5010/6010, 5020/6020 and MICR 5000/6000 or permission of the instructor.* Offered in alternating spring semesters; meets 6 hours/week for ½ 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. (5362 - spring; 6362 - Spring, odd years)

MICR 5462/6462 Bacterial Genetics (3 credits)—This course will examine bacterial genetics focusing on molecular mechanisms. Experimental approaches used to dissect complex biological phenomena will be particularly emphasized. The course is designed to be useful for those who study bacterial systems as well as those who use bacterial systems as tools for investigating eukaryotic systems. This half-semester course is designed to complement the Molecular Virology course given the second half of the semester and will focus on prokaryotic

systems. The classes will be split between presented material and discussion of papers from the primary literature. (spring)

MICR 5500/6500 Special Topics in Microbiology (2 credits)—*Prerequisite(s): 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. (fall, spring, summer)

MICR 5900/6900 Special Problems in Microbiology (1-5 credits)—*Prerequisite(s): 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. (fall, spring, summer)

MICR 5960 Microbiology Thesis Research (1-3 credits)—Supervised research toward thesis. (fall, spring, summer)

MICR 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). (fall, spring, summer)

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. (fall, spring, summer)

MICR 6300 Immunology (2 credits)—*Prerequisite(s): 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. (fall)

MICR 6400 Bacterial Physiology and Metabolism (5 credits)—*Prerequisite(s): 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. (spring, odd years)

MICR 7960 Microbiology Dissertation Research (1-12 credits)—Supervised research toward thesis. Generally up to 12 credits; exceptionally up to 18 credits. (fall, spring, summer)

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). (fall, spring, summer)

Marketing (MKTG)

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(s): 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 5217 Health Care Marketing (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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.

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.

Music (MUSC)

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(s): 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(s): 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(s): 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(s): 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 5617 Teaching Beginning Piano (3 credits)—*Prerequisite(s): 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(s): 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(s): 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 5810 Suzuki Philosophy (2 credits)—Identifies and outlines the basis of the Suzuki method of teaching music. Biannually.

MUSC 5820 Advanced Suzuki Pedagogy (2 credits)—Focuses on the pedagogical techniques of the Suzuki method of teaching music. May be repeated for credit. fall, spring.

MUSC 5837 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(s): 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 5957 Special Topics in Music (1-6 credits)—*Prerequisite(s): Contract must be on file prior to registration.* Contract available in Mathes 100. Individual instruction and research in topics pertaining to music. Every semester.

MUSC 5960 Thesis (1-3 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).

Nursing (NURS)

NURS 5000 Theoretical Foundations of Advanced Nursing Practice (3 credits) — *Prerequisite: Admission to the RODP-MSN program or permission of coordinator.* This course provides the student with the theoretical foundations for advanced nursing. The focus of the course is on the critical components of contemporary nursing knowledge; exploration of the nature of theory development in nursing; examination of relevance of concepts from basic and applied sciences; analysis and evaluation of nursing and related theories; and relevance of theory in terms of impact on professional nursing practice, and individuals, families, and groups as clients in health care systems.

NURS 5001 Health Care Policy (3 credits) — *Prerequisite: Admission to the RODP-MSN program or permission of coordinator.* The primary focus of this course is the analysis of health care systems. Public and private health care delivery systems are examined. Students explore future challenges and processes to improve systems.

NURS 5002 Advanced Nursing Research (3 credits) — *Prerequisite: Admission to the RODP-MSN program or permission of coordinator.* This course involves the systematic examination and application of the research process. The concept of evidence-based practice and its application to nursing is critically examined.

NURS 5003 Advanced Role Development (3 credits) — *Prerequisite: Admission to RODP-MSN program.* This course provides students with an in-depth understanding of the legal, historical, political, social, and ethical aspects of advanced nursing. Traditional and emerging roles for advanced nursing are examined.

NURS 5101 Advanced Health Assessment (3 credits) — *Prerequisite: Admission to RODP-MSN program.* This course prepares the advanced practice nurse to conduct focused and comprehensive health assessments of clients across the lifespan. The process of diagnostic reasoning is emphasized as the primary means of collecting and analyzing data obtained from the client history, physical examination, and diagnostic procedures.

NURS 5102 Advanced Health Assessment - Clinical (1 credit) — *Prerequisite: Admission to the RODP-MSN program or permission of coordinator. Corequisite: NURS 5101.* This clinical lab course emphasizes the application of advanced assessment techniques to perform focused and comprehensive health assessments of clients across the lifespan. Clinical analysis and synthesis of physical assessment data and diagnostic reasoning skills are developed.

NURS 5103 Advanced Pathophysiology (3 credits) — *Prerequisite: Admission to the RODP-MSN program.* An in-depth scientific knowledge base relevant to selected pathophysiological states confronted by advanced practice nurses is explored. This course provides a basis for the foundation of clinical decisions related to selected diagnostic tests and the initiation of therapeutic regimens. Pathophysiology across the lifespan is correlated to clinical diagnoses and management.

NURS 5104 Advanced Clinical Pharmacology (3 credits) — *Prerequisite: Admission to the RODP-MSN program.* This course focuses on pharmacology and therapeutics used in the treatment of selected health conditions commonly encountered by the advanced practice nurse. Emphasis is placed on the decision-making process utilized to safely and effectively prescribe and monitor pharmacotherapeutics appropriate to the client situation.

NURS 5201 Theories of Nursing Education (3 credits) — *Prerequisite: NURS 5000.* This course explores major research-based theories of adult learning and knowledge development in nursing. These theories will be examined for their utility across a variety of settings and/or levels of education.

NURS 5202 Teaching Strategies and Evaluation Methods (3 credits) — *Prerequisite: Admission to the RODP-MSN program.* This course provides the learner with knowledge necessary for competent classroom and clinical teaching. Methods of teaching students at the university, community college, and health care settings in classroom, seminar, and electronic formats are explored. Evaluation methods used in the classroom and in clinical instruction are included.

NURS 5203 Curriculum Design (3 credits) — *Prerequisite:* NURS 5201. This course introduces the student to traditional and contemporary considerations for curriculum planning and design as applied to nursing education. Emphasis is placed on philosophy, theory, objectives, curriculum designs, and total program evaluation.

NURS 5207 Clinical Focus Practicum (2 credits) — *Prerequisites:* NURS 5103; 3 hours (1 course) in selected clinical focus area. *Corequisite:* second course in sequence of 2 clinical focus courses. This practicum 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 management of clients within a clinical focus area.

NURS 5209 Nursing Education Practicum (4 credits) — *Prerequisites:* NURS 5201, NURS 5202, and NURS 5203. *Corequisite:* NURS 5207. This practicum experience is designed to integrate theory in a reality context of the teaching role. Opportunities are provided to participate in all phases of the teaching role, including clinical instruction in an area of specialization, and to experiment with different teaching methods.

NURS 5301 Nursing Administration I (3 credits) — *Prerequisite:* Admission to the RODP-MSN program. Comprehensive analysis of concepts required for effective performance of the nurse executive's role in organizations. Management as a function of the total organizational system is evaluated. Organizational designs and interpersonal relationships in the health care organization are critiqued.

NURS 5302 Nursing Administration II (3 credits) — *Prerequisite:* NURS 5301. A synthesis of concepts used for effective performance of the nurse executive's role in organizations. The use of human and financial resources in organizational development is explored.

NURS 5303 Health Care Finance (3 credits) — *Prerequisite:* Admission to the RODP-MSN program or permission of coordinator. This course will enable you to learn the basics of current finance theory and tools to practice in managing health care on a day-to-day basis.

NURS 5304 Human Resources Management (3 credits) — *Prerequisite:* NURS 5301. Personnel and human resource issues including labor management in nursing and health care settings.

NURS 5305 Quality Management in Nursing and Health Care (3 credits) — *Prerequisite:* NURS 5301. This course provides a multidisciplinary background in the science of health care quality management. The history and evolution of the quality movement, theories and thought leaders, current quality of care issues, research and innovations, intervention strategies, and instruments will be covered; as well as an analysis of quality management system models in health care.

NURS 5309 Nursing Administration Practicum (4 credits) — *Prerequisites:* NURS 5301, NURS 5302, NURS 5303, NURS 5304, and NURS 5305. This practicum experience is designed to integrate theory in a reality context of the administrator's role. Opportunities are provided to participate in all phases of the executive role in different administrative settings.

NURS 5401 Informatics and Information Management (3 credits) — *Prerequisite:* Admission to the RODP-MSN program or permission of department chair. This course provides students with an overview of informatics and the theoretical foundation for information management within the health care setting. The impact of automated data management through advances in information technology, health care information systems, and tele-health are explored.

NURS 5402 Health Care Information Systems (3 credits) — *Prerequisite:* NURS 5401 or permission of department chair/instructor. This course introduces the concepts upon which health care information systems are developed, implemented, and maintained. Operating systems, networking concepts, security issues and workstation design, and evaluation related to the health care environment are addressed.

NURS 5403 Analysis and Design of Health Care Information Systems (3 credits) — *Prerequisite:* Successful completion of NURS 5402. *Corequisite:* NURS 5407. This course provides the student with knowledge and skills needed to analyze and design health care information systems. Informatics models, conceptual frameworks, and practice activities are discussed.

NURS 5404 Evaluation of Health Care Information Systems (3 credits) — *Prerequisite:* NURS 5403. This course provides advanced knowledge and skill for implementing and evaluating health care information systems in practice. Emerging technologies are emphasized.

NURS 5405 Health Care Data Analysis Techniques (3 credits) — *Prerequisite:* NURS 5401. This course presents the concepts related to complex data analysis within the health care environment. Principles of data collection, organization, and statistical analysis and interpretation will be covered. Students will also have the opportunity to review complex applications for data mining and reporting within the health care environment.

NURS 5407 Informatics Applications Practicum I (2 credits) — *Prerequisite:* NURS 5402. *Corequisite:* NURS 5403. The practicum builds upon the concepts and technology introduced in related informatics coursework to provide experiences in informatics applications in health care settings.

NURS 5409 Informatics Applications Practicum II (2 credits) — *Prerequisite:* NURS 5403. *Corequisite:* NURS 5404. The practicum course builds upon the concepts and technology introduced in other related informatics coursework to provide additional experiences in informatics applications in health care settings. Students will have the opportunity to explore a variety of informatics applications and then identify specific informatics applications based on their practice interests.

NURS 5501 Advanced Adult Health Nursing I (3 credits) — *Prerequisite:* NURS 5000. This course focuses on the theoretical and conceptual basis for nursing management of the acutely ill client from social, cultural, psychological, physical, spiritual, and economic perspectives.

NURS 5503 Advanced Adult Health Nursing II (3 credits) — *Prerequisites:* NURS 5000, NURS 5103, and NURS 5501. This course focuses on the theoretical and conceptual basis for nursing management of clients experiencing chronic illness from social, cultural, psychological, physical, spiritual, and economic perspectives.

NURS 5511 Psychiatric Nursing Care I (3 credits) — *Prerequisite:* NURS 5103. This course will provide a foundation in the specialty care of individuals and families experiencing a psychiatric disorder.

NURS 5513 Psychiatric Nursing Care II (3 credits) — *Prerequisite:* NURS 5103. This course provides students with a conceptual theory-base for implementing advanced practice psychiatric nursing psychotherapy interventions.

NURS 5522 Critical Care I (3 credits) — *Prerequisite:* NURS 5103. This course focuses on advanced concepts of critical care related to multi-organ/system function and dysfunction. Nursing care relating to physiology, assessment, pathophysiology, system failure, and clinical management of the cardiovascular system, pulmonary system, renal system, and endocrine system are addressed. Core concepts of complex pathophysiology, current treatment modalities, and advanced nursing roles are integrated in discussions of providing care to critically ill patients.

NURS 5523 Critical Care II (3 credits) — *Prerequisite:* NURS 5103. This course focuses on advanced concepts of critical care related to multi-organ/system function and dysfunction. Nursing care relating to physiology, assessment, pathophysiology, system failure, and clinical management of the defense systems (infection, sepsis, organ/bone marrow transplant), shock, trauma, neurological system, hepatic system, and gastrointestinal systems are addressed. Integrative core concepts with more complex pathophysiology and advanced treatment modalities of advanced nursing care are integrated to provide care to critically ill patients.

NURS 5541 Women's Health and Perinatal Nursing I (3 credits) — *Prerequisite:* NURS 5103. This course focuses on evidence-based care of the women experiencing common health alterations and developmental transitions. Nursing strategies will include health promotion, prevention of disease, maintenance, and restoration.

NURS 5543 Women's Health and Perinatal Nursing II (3 credits) — *Prerequisites:* NURS 5541 and NURS 5103. This course focuses on evidence-based management and care of the pre-gestational, antepartum, intrapartum, and the puerperium woman. Focus will include selected alterations of pregnancy. In addition, management and care of the adaptive transitional stages of the newborn and parenting education are explored.

NURS 5601 Family Nurse Practitioner I (3 credits) — *Prerequisites:* Admission to the RODP-MSN program or permission from the department chair, NURS 5101/5102, NURS 5103, and NURS 5104. *Corequisite:* NURS 5602. This course focuses on advanced practice nursing and health care management of women in diverse populations. Course content includes biopsychosocial interactions affecting women throughout the lifespan.

NURS 5602 Family Nurse Practitioner I - Clinical (2 credits) — *Prerequisites:* Admission to the RODP-MSN program or permission from the department chair, NURS 5101/5102, NURS 5103, and NURS 5104. *Corequisite:* NURS 5601. The focus of this clinical course is delivery of advanced nursing care to women. Various clinical settings with diverse populations may be employed for clinical practice.

NURS 5603 Family Nurse Practitioner II (3 credits) — *Prerequisites:* Admission to the RODP-MSN program or permission from the department chair, NURS 5101/5102, NURS 5103, and NURS 5104. *Corequisite:* NURS 5604. This course focuses on advanced practice nursing and health care management of adults and older adults in diverse populations. Course content includes developmental, physiological, pathological, and psychosocial changes relative to health maintenance, acute and chronic illnesses, and life transitions.

NURS 5604 Family Nurse Practitioner II - Clinical (4 credits) — *Prerequisites:* Admission to the RODP-MSN program or permission from the department chair, NURS 5101/5102, NURS 5103, and NURS 5104. *Corequisite:* NURS 5603. This course focuses on advanced practice nursing and health care management of adults and older adults in diverse populations. Course content includes developmental, physiological, pathological, and psychosocial changes relative to health maintenance, acute and chronic illnesses, and life transitions.

NURS 5605 Family Nurse Practitioner III (3 credits) — *Prerequisites:* NURS 5101/5102, NURS 5103, and NURS 5104. *Corequisite:* NURS 5606. The focus of this course is on advanced nursing and health care management of children and adolescents. Course content includes developmental, physiological, pathological, and psychosocial changes relative to health maintenance, acute and chronic illnesses, and developmental transitions within the family context.

NURS 5606 Family Nurse Practitioner III - Clinical (2 credits) — *Prerequisites:* NURS 5101/5102, NURS 5103, and NURS 5104. *Corequisite:* NURS 5605. This clinical course is designed to provide the student with opportunities to deliver advanced nursing care to children and adolescents in families and

communities. In collaboration with nursing faculty and clinical preceptors, various primary care settings will be employed for clinical practice.

NURS 5609 Advanced Family Nurse Practitioner Practicum (4 credits) — *Prerequisites:* NURS 5000, NURS 5601/5602, NURS 5603/5604, and NURS 5605/5606. *Corequisite:* NURS 5990. This practicum 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.

NURS 5631 Pediatric Nursing I (3 credits) — *Prerequisite:* Admission to the ROPD-MSN program or permission of coordinator. This course is designed to provide advanced practice nurses with the necessary knowledge to provide health maintenance and health promotion to well children and their families.

NURS 5633 Pediatric Nursing II (3 credits) — *Prerequisites:* NURS 5000 and NURS 5101/5102. This course is designed to provide the advanced practice nurse with the necessary knowledge base to provide care for children and their families experiencing minor acute illness and chronic illness/disabilities. Content will emphasize common minor acute illnesses and chronic illness/disabilities typically seen in the ambulatory clinic site.

NURS 5990 Scholarly Synthesis (3 credits) — *Prerequisites:* NURS 5002, permission of department. As a culminating experience, this course is intended to be taken during the semester of planned graduation. As a culminating experience, this course provides the student with the opportunity to complete a synthesis component. The student will choose one of the following scholarly activities: 1. design a program; 2. write a grant proposal; 3. complete a scholarly project; 4. submit a manuscript for publication; and 5. present at a national or regional research conference. The activity must be approved by the supervising faculty member and the concentration coordinator.

Pharmacology (PHAR)

PHAR 5000/6000 Medical Pharmacology (7 credits)—*Prerequisite(s):* 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 General Principles of Pharmacology (4 credits)—*Prerequisite(s):* 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. (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. (fall, spring, summer)

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. (5210 - fall, spring; 6210 - fall, spring, summer)

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, spring, summer)

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 5957 Special Topics in Pharmacology (1-6 credits)—*Prerequisite(s):* 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.

PHAR 5960 Pharmacology Thesis Research (1-3 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). (every semester)

PHAR 6320 Autonomic Pharmacology (3 credits)—*Prerequisite(s):* Permission of the instructor. This course is directed toward 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(s):* 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 system. 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(s):* 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. (fall)

PHAR 6400 Toxicology (3 credits)—*Prerequisite(s):* 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. (fall, spring)

PHAR 7960 Pharmacology Dissertation Research (1-16 credits)—Supervised research toward thesis. Generally up to 12 credits; exceptionally up to 16 credits. (every semester)

Philosophy and Humanities (PHIL)

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. (fall)

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. (spring, odd years)

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. (spring, even years)

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. (fall)

PHIL 5077 Contemporary Continental Philosophy (3 credits) — A survey of the developments in European philosophy from the late 19th century to the present. Topics may include phenomenology, hermeneutics, deconstruction, post-structuralism, critical theory, and philosophies of difference. (spring, even years)

PHIL 5087 Topics in Analytic Philosophy (3 credits) — A survey of the developments in analytic philosophy from the late 19th century to the present. Topics may include logical atomism, logical positivism, ordinary language philosophy, naturalism, conceptual analysis, analytic epistemology, analytic metaphysics, and meta-ethics. (spring, odd years)

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. (fall, even years)

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. (fall, odd years)

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 5900 Independent Study in Philosophy (1-3 credits)—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.

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. (fall, odd years)

PHIL 5957 Topics in... (1-6 credits)—*Prerequisite(s):* 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. (spring)

Physics (PHYS)

PHYS 5007 Computational Physics (3 credits)—*Prerequisite(s):* 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(s):* 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 hours lecture and one hour recitation each week.

PHYS 5617 Quantum Physics (4 credits)—*Prerequisite(s):* PHYS 3610, PHYS 3010, and senior standing. 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.

PHYS 5717 Electromagnetic Theory (4 credits)—*Prerequisite(s):* PHYS 3710. Principles of electromagnetic theory, Maxwell's equations, selected applications, and related topics. Three hours lecture and one hour recitation each week.

PHYS 5900 Special Problems in Physics (1-3 credits)—*Prerequisite(s):* 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.

Physical Therapy (PHYT)

NOTE: Students must be accepted into the Physical Therapy program in order to register for any of the following courses:

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. (spring)

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. (spring)

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. (spring)

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. (spring)

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. (spring)

PHYT 6212 PT Basic Skills II (2 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). (summer)

PHYT 6213 PT Basic Skills III (4 credits)—Documentation and 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. (summer)

PHYT 6221 Musculoskeletal I: Upper Quarter (Cervical Spine, TMJ, and Upper Extremities) (4 credits)—This course is an introduction to physical therapy evaluation and treatment management of common

neuromusculoskeletal disorders of the cervical spine, stomatogastric system (especially temporomandibular joint), and the upper extremities (shoulder, elbow, wrist, and hand). 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 upper quarter. (summer)

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. (summer)

PHYT 6271 Clinical Practicum I (2 credits)—*Prerequisite(s):* 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. (summer)

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. (fall)

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. (fall)

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. (fall)

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 lower quarter and rehabilitation of common surgical repairs of the lower quarter. (fall)

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. (fall)

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. (spring)

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. (spring)

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. (spring)

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. (spring)

PHYT 6452 Clinical Correlates Seminar I (1 credit)—This is the first of two courses in which students begin to integrate concepts drawn from previous coursework with developing clinical knowledge and practical experience. Case studies will be presented to the class and faculty for discussion to facilitate transition to professional practice. The emphasis of the first course is presenting accurate and objective patient case study information and one (1) objective evidence-based assessment or intervention. (spring)

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. (spring)

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. (spring)

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. (summer)

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. (summer)

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. (summer)

PHYT 6554 Clinical Correlates II (1 credit) — This is the second of two (2) courses in which students begin to integrate concepts drawn from previous coursework with developing clinical knowledge and practical experience. Case studies will be presented to the class and faculty for discussion to facilitate transition to professional practice. The emphasis of the second course is evidence-based assessments or interventions for a specific patient case study and the outcomes. (summer)

PHYT 6573 Clinical Practicum III (2 credits) — 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. (summer)

PHYT 6663 Human Research for Physical Therapy (1 credit)—Students are introduced to the procedures involved in human research. These include the educational requirements and development and submission of all documentation required to conduct research with humans. Students will examine the components and mechanism of writing a case report. (fall)

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. (fall)

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. (fall)

PHYT 7706 Pharmacology II for Physical Therapy (1 credit)—*Prerequisite(s):* *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. (spring)

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. (spring)

PHYT 7764 Case Study in Physical Therapy (1 credit)—*Prerequisite(s):* *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. (spring)

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. (spring)

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. (summer)

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. (summer)

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. (summer)

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. (summer)

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. (summer)

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. (summer)

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. (spring)

Physiology (PHSI)

PHSI 5000/6000 General Physiology (9 credits)—*Prerequisite(s):* *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(s):* *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(s): 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(s): 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(s): 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 5450/6450 Membrane Transport Biology (3 credits)—*Prerequisite(s): 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 5500/6500 Special Topics: Introduction to Research (1-5 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 (1-5 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 credits)—*Prerequisite(s): 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 (1-3 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 7960 Physiology Dissertation Research (1-18 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 (PMGT)

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 and 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 5300 Not-for-Profit Resource Development (3 credits)—A survey of not-for-profit development including: (1) how to raise the resources necessary for the survival of a not-for-profit organization, (2) how to recruit and develop human resources, including volunteers and effective board members, and (3) how strategic planning relates to these most vital resources.

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 inter-local 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(s): 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(s): 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 Administration Consultantship (3 credits)—*Prerequisite(s): Permission of M.P.A. Advisor.* Supervised consultantship in a municipal government or nonprofit agency.

PMGT 5840 Public Management Report (3 credits)—*Prerequisite(s): 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 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(s): 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 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).

Professional Roles/Mental Health Nursing (PMNU)

PMNU 5000 Conceptual Systems for Advanced Nursing Practice (2 credits)—*Prerequisite(s): Admission to the graduate program.* 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)—*Prerequisite(s): Admission to the graduate program or permission of instructor.* This course includes the study of methodology of research in nursing and health, evaluation of research design, and models of research utilization that guide the implementation of research in practice. Emphasis is placed on generating research questions from theory and practice, designing research, and evaluating research and evidence for use in practice. (spring)

PMNU 5002 Policy and Ethics in Advanced Nursing Practice (3 credits)—*Prerequisite(s): 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. (fall)

PMNU 5004 Seminar in Professional Roles (1 credit)—*Prerequisite(s): Admission to the graduate program.* 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)—*Prerequisite(s): Admission to the graduate program or permission of instructor.* 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. (elective)

PMNU 5017 Health Care Informatics (3 credits)—*Prerequisite(s): Permission of the instructor.* 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. (fall, spring)

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 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/ 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 5037/6037 Essentials of Nursing Education (3 credits) — *Prerequisite: Educational Theories course.* Provides the conceptual foundation for the practice of nursing education at various levels and across settings.

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/SOWK 5110 Interdisciplinary Approaches to Bioethical Issues (3 credits)—*Prerequisite(s): 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 5200 Microsystem Management for the CNL (3 credits) — Analyzes the role and role expectations of the Clinical Nurse Leader while concurrently examining the components of the organization to effectively manage a population of patients. (spring)

PMNU 5303 Psychopharmacology (3 credits)—*Prerequisite(s): 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 pharmacologic, pharmacodynamic 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)—*Prerequisite(s): Admission to the graduate nursing program or permission of instructor.* 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(s): Admission to the graduate nursing program or permission of the instructor. Prerequisite(s)/Corequisite(s): 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)—*Prerequisite(s): ALNU 5009, 5010, 5016, and 5018, and PMNU 5000.* 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. (spring)

PMNU 5405 Advanced Psychiatric Nursing Care I: Practicum (3 credits)—*Prerequisites: ALNU 5009, ALNU 5010, ALNU 5016, and ALNU 5018. 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. (spring)

PMNU 5408 Advanced Psychiatric Nursing Care II (2 credits)—*Prerequisite(s): 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. (summer)

PMNU 5409 Advanced Psychiatric Nursing Care II: Practicum (2 credits)—*Prerequisite(s): PMNU 5404 and 5405. Prerequisite(s)/Corequisite(s): 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. (summer)

PMNU 5410 Interpersonal Treatment Modalities (3 credits)—*Prerequisite(s): PMNU 5404.* This course provides students with a conceptual theory-base for implementing advanced practice psychiatric nursing psychotherapy interventions. (fall)

PMNU 5411 Interpersonal Treatment Modalities: Practicum (3 credits)—*Prerequisite(s): PMNU 5404. Prerequisite(s)/Corequisite(s): PMNU 5410.* This course provides students with clinical experiences in implementing advanced practice psychiatric nursing psychotherapy interventions. (fall)

PMNU 5501 Leadership in Nursing Administration (1 credit) —Leadership theories and concepts are explored, analyzed, and evaluated. The course focuses on personal leadership philosophy and how it impacts organizational members. (fall)

PMNU 5510 Organizational Theory and Nursing Administration (3 credits)—*Prerequisite(s): PMNU 5501.* 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(s): 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 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.

PMNU/PUBH/MGMT 5530 Health Care Organizations and Law (3 credits)—*Prerequisite(s): 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 5535 Quality Management in Health Care Organizations (3 credits)—This course prepares health care leaders with knowledge to guide complex health care delivery systems and focuses on improvement of systems and outcomes in order to provide safe, effective, and efficient care to clients. (fall)

PMNU/PUBH/MGMT 5550 Human Resource Management in Health Organizations (3 credits)—*Prerequisite(s): 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. Emphasis will be placed on the technical aspects of human resource management as well as the managerial skills required to manage people. (fall)

PMNU 5560 Nursing Administration Practicum I (2 credits)—*Prerequisite(s): PMNU 5510, 5520, and 5550.* This first capstone 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)—*Prerequisite(s)/Corequisite(s): PMNU 5560.* This second capstone course provides in-depth practicum experiences with approved preceptors in nurse administrator 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 5610 The Illness Experience (3 credits) — *Prerequisite: Graduate Status.* This course examines the illness experience from the perspective of the patient. Particular emphasis is placed on distinguishing illness from disease and the role of narrative in enhancing healing relationships and environments.

PMNU/MGMT/PUBH 5590 Strategic Planning for Health Care Organizations (3 credits)— *Prerequisite: 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. (spring)

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 5957 Special Topics in Nursing (1-6 credits)—*Prerequisite(s): 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.

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, thesis, or dissertation MUST enroll in Readings and Research. Variable (1-3) credit hours of Readings and Research may also be used, as approved by the 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). (fall, spring, summer)

PMNU 6000 Theoretical Foundations of Nursing Practice (3 credits)—*Prerequisite(s): Admission to the doctoral program.* 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)—*Prerequisite(s): Admission to the graduate program.* 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. (spring)

PMNU 6040 Qualitative Methods in Nursing Research (3 credits)—*Prerequisite(s): PMNU 6100.* 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. (fall)

PMNU 6100 Philosophy of Nursing Science (3 credits)—*Prerequisite(s): Admission to the Ph.D. 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.

PMNU 6110 Interdisciplinary Approaches to Bioethical Issues (3 credits)—*Prerequisite(s): Admission to the Ph.D. program or 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/ALNU/FCNU 6960 Doctoral Dissertation (1-12 credits)—*Prerequisite(s): Successful completion of Qualifying Examination.* Supervised research toward dissertation. (spring)

PMNU/ALNU/FCNU 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 not be appropriately covered by other types of independent study. (spring)

Professional Studies (PRST)

PRST 5100 Professional Environment: Issues and Ethics (3 credits)—Overview of ethics in general, with practical tools for assessing ethical dimensions of professional life, diagnosing or identifying the moral issues at hand, and then developing reasonable options to address particular moral and ethical issues.

PRST 5200 Globalization and the Professions (3 credits) — The purpose of this course is to assess the impact of globalization on professional life. The course examines globalization as it relates to commerce, information flow, mass media, government, health care, and education.

PRST 5300 Research Methods (3 credits)—The study and application of research methods appropriate to professional studies. The course will provide a general introduction to research methods, as well as providing practical exposure to Problem Statements, Literature Reviews, Writing the Research Proposal, and Organization of the Research Report. Quantitative and Qualitative Research methodologies will be covered. (fall, spring, summer)

PRST 5500 Foundations of Leadership (3 credits)—Students will study leadership from a historical and contemporary perspective. Topics cover historical development, leadership theories, personal assessment, values and ethics, motivation, power, followership, group dynamics, diversity, controversy with civility, change process, and citizenship. (spring, summer)

PRST 5600 Statistical Analysis (3 credits) — *Prerequisite: PRST 5300.* Analytical decision making including statistics, quantitative methods, and other optimization and simulation models.

PRST 5700 Conflict Management and Negotiation (3 credits) — Conflict Management and Negotiation presents negotiation theory - strategies and styles - within an employment context. A different topic will be presented each week. In addition to the theory and exercises presented in class, students practice negotiating with role-playing simulations in threaded discussions and chat. Students also learn how to negotiate in difficult situations, which include abrasiveness, racism, sexism, whistle blowing, and emergencies. The course covers conflict management from two perspectives. From a first party perspective you will be directly engaged. As a third party, you will develop and enhance your skills in helping others deal directly with their conflicts, mediation, investigation, arbitration, and helping the system change as a result of a dispute.

PRST 5800 Organizational Skills and Development (3 credits) — Analysis of theory, practice, and skills involved in leading organizational change, including: aligning change with the organizational strategy, understanding changes as a part of a system, understanding the dynamics of and managing resistance to change, creating a vision to inspire others to become a part of the change process, the use of goal setting, feedback and incentives to promote change, and aligning individual's roles to support change. The course will blend learning from the texts and skill building.

PRST 5998 Professional Project (3 credits) — The Professional Project is the last requirement for the Master of Professional Studies degree, serving as the integrative culmination of the program of study. It should be a substantial piece of independent research or a significant professional project that is logically consistent with the theme and content of the program of study. Student's work should demonstrate familiarity with and understanding of a body of professional literature related to a specific topic. The Project should grow out of the program of study and should demonstrate the student's ability to use the knowledge gained from this program of study.

Psychology (PSYC)

PSYC 5100 Legal and Ethical Issues in Psychology (3 credits)—This course is a seminar designed to acquaint students with the American Psychological Association's Code of Ethical Conduct, the Tennessee Psychological Association's Code of Ethical Conduct, and the Tennessee State Legal Code pertaining to practice and research in Psychology. A variety of ethical and legal issues will be covered in the areas of teaching, research, clinical practice, and supervision.

PSYC 5210 Statistical Methods (3 credits)—*Prerequisite(s): 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 and Psychotherapy Models (3 credits)—*Prerequisite(s): Psychology 4100.* The purpose of this course is to provide a graduate-level exploration of traditional models of psychotherapy and associated personality theories. Its intent is to consider in some depth specific aspects of normal and abnormal interpersonal adjustment and to provide a basis for the student's own thinking about how people develop and come to have problems as well as models of psychotherapeutic change. This course is based in reading, discussion, and presentation of course material from textbook and primary sources.

PSYC 5230 Advanced Developmental Psychology (3 credits)—*Prerequisite(s): 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 5317 Perception (3 credits)—*Prerequisite(s): Psychology 1310.* 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 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 5507 Psychopharmacology (3 credits)—*Prerequisite(s): PSYC 1310.* This course is designed to introduce the student to the field of psychopharmacology, placing particular emphasis on drug abuse, drug treatment, and biochemical actions of drugs in the brain.

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 5607 Child Psychopathology (3 credits)—*Prerequisite(s): PSYC 1310, 4320, HDAL 2310.* The purpose of the course is to acquaint students with aspects of diagnosis, measurement, and treatment of child psychopathology. (fall, summer)

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 5707, 5717 Advanced Behavioral Neuroscience (4 credits)—*Prerequisite(s): Psychology 3707.* 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 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 5807 Forensic Psychology (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): Psychology 1310, 3100.* 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 5825 Psychopathology (3 credits)—*Prerequisite(s): 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 5830 Psychological Assessment I: Adults (3 credits)—*Prerequisite(s): 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: Child (3 credits)—*Prerequisite(s): 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)—*Prerequisite(s): 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 (1-3 credits)—*Prerequisite(s): 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 Clinical Psychology Clerkship (1 credit - repeatable)—*Permission of the instructor is required for enrollment in this course.* Four hours per week of supervised field placement in a role of observer or observer participant, for a total of 60 hours of on-site placement.

PSYC 5950 Methods of Psychological Research (3 credits)—*Prerequisite(s): 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 5957 Special Topics in Psychology (1-6 credits)—*Prerequisite(s): Permission of instructor.* Special offerings in psychology on topics such as group therapy, family dynamics, cognitive processes, ethics, etc. (as needed)

PSYC 5960 Thesis (3-6 credits)—*Prerequisite(s): 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 6210 Meta-Analytic Research Methods (3 credits) — This course will introduce the student to theory, applications, and techniques of meta-analysis in the behavioral sciences. This course will follow the steps of a systematic research review: problem specification and data collection, analysis, interpretation, discussion, and presentation.

PSYC 6410 Covariate Structural Modeling (3 credits) — This course introduces covariance structure analysis. It begins with the notion of a causal structure underlying a set of observable covariances. It will discuss the implications of random measurement error in linear regression models, the concept of unobservable variables, and review some of the elementary principles of classical test theory. Concepts will be applied using the popular AMOS structural equation modeling software.

PSYC 6810 Advanced Clinical Interviewing (3 credits) — *Permission of the instructor is required for enrollment in this course.* This course covers both the didactic and applied aspects of psychological interviewing, including varying models of interviewing across a variety of referral situations. Students will conduct taped interviews outside of class for both peer and instructor feedback and evaluation.

PSYC 6870 Evidence-based Interventions (3 credits) — *Permission of the instructor is required for enrollment in this course.* This course will provide a detailed overview of evidence-based psychological interventions for common adult disorders (with some overlap into adolescent/childhood disorders). Empirically supported treatments and cognitive-behavioral approaches will be particularly emphasized. Major topics covered in this class will include: perspective on valid assessment; intervention approaches with empirical support; differing modes of treatment (i.e., couples therapy, group therapy); and the application of empirically supported treatments in various settings such as those found in medical primary care and mental health center sites.

PSYC 7100 Primary Care Psychology I (3 credits) — This course is an in-depth exploration of the psychologist in primary care settings with emphasis on the multiple roles of psychologists in those settings, an understanding of prevention and wellness, developing and maintaining collaborative relationships with health care providers, understanding of medical terminology, referral processes and time pressure demands, and other pertinent issues.

PSYC 7110 Primary Care Psychology II (3 credits) — *Prerequisite: PSYC 7100 Primary Care Psychology I.* This course is the sequel to PSYC 7100. It is designed to provide the advanced student with a comprehensive analysis of the public policies, clinical trends, and empirical literature relevant to the provision of behavioral and mental health services within an integrated primary care model with emphasis on rural and frontier areas. The psychologist's role in providing assessment of common primary care problems and in providing interventions in primary care will be thoroughly explored.

PSYC 7300 Mental Health Care Consultation/Administration (3 credits) — This course focuses on health policy and health care functioning as it applies to mental health services and integrated primary care with specific focus on the roles of the psychologist as health care administrator and consultant. Sociopolitical features of the health care system, the role of primary care in our current health care system and differences from the mental health system, and similarities and differences in various primary care settings are included.

PSYC 7400 Family Psychology (3 credits) — This course addresses processes that take place in families and other close relationships. Emphasis is placed on evaluating current research on family dynamics within and across generations and on the application of research findings to assessment of family dynamics in clinical settings.

PSYC 7410 Advanced Child Psychopathology (3 credits) — This course is an advanced course in psychiatric disorders of childhood and adolescence. Focus is not only on diagnostic criteria used in identifying these disorders, but on normal and abnormal development models. Methods of assessing childhood behavior problems, including clinical interview of child and parent, parent and child checklists, and structured observation are covered, as well as the most effective treatment strategies.

PSYC 7420 Substance Abuse Psychology (3 credits) — This is an advanced course covering theoretical perspectives, research, and psychological treatment of substance abuse.

PSYC 7450 Group Psychology (3 credits) — *Prerequisite: PSYC 6870.* The primary purpose of this course is to cover key concepts in assessment of group processes and group intervention strategies and to provide the student with skills in group intervention. The course assumes background in evidence-based psychological interventions.

PSYC 7500 Cultural Anthropological Applications to Rural Practice (3 credits) — This course examines beliefs about illness, healing, and the body with an emphasis on cultural influences. Lectures and readings will use case materials drawn from North America, Africa, Central and Latin America, the Pacific, and Asia. The course will begin by distinguishing physical "disease" from the cultural understandings of "illness" and will explore the ways that cultural conceptions shape the experience of illness and mental illness. Cross-cultural examples will be utilized to explore culturally defined perceptions and definitions of mental disorders.

PSYC 7550 Community Assessment and Intervention (3 credits) — This course covers key concepts in clinical community and health psychology with

particular focus on assessment of community mental and behavioral health issues and design and evaluation of interventions which improve health and prevent disorders in general and special populations. Particular attention will be paid to rural communities and how assessments and interventions can be tailored to fit cultural and social contexts.

PSYC 7900 Independent Study in Research (1-3 credits, repeatable) — Supervised research by arrangement with supervising faculty member.

PSYC 7910 Clinical Externship (2-8 credits, repeatable) — *Permission of the instructor is required for enrollment in this course.* One day per week in a supervised field experience, for a total of 120 clock hours per term.

PSYC 7960 Doctoral Dissertation in Psychology (3 credits, repeatable to 12) — By arrangement with student's graduate committee.

PSYC 7980 Pre-Doctoral Internship (1 credit, repeatable to 3) — Full-time clinical psychology internship following the guidelines of the American Psychological Association and the American Psychology Internship Committee. Must have approval of the Director of Clinical Training to enroll.

Public Health (PUBH)

PUBH 5007 Principles and Practice 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 5020 Philosophy of Public Health (1 credit)—*Prerequisite(s): Graduate Standing.* This course serves as an introduction to public health practice. (pass/fail)

PUBH 5030 Overview of Public Health (3 credits)—This course provides an introduction to public health concepts and practice by examining the philosophy, purpose, history, organization, functions, tools, activities, and results of public health practice at the national, state, and community levels. The course also addresses important health issues and problems facing the public health system. Case studies and a variety of practice-related exercises serve as bases for learner participation in real world public health problem-solving simulations.

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 Community Health Assessment Research (3 credits)—*Prerequisite(s): Prior or concurrent registration in PUBH 5200 and 5400 or permission of the instructor.* Assessing appropriate demographic and health-related data are foundational to addressing health problems in a responsive and effective way. This hands-on course provides students with the opportunity to develop and apply strategies for identifying and prioritizing individual and community health status, risks, and needs. It includes development, administration, analysis, and interpretation of qualitative and quantitative needs assessment strategies including stakeholder interviews, focus groups, and survey questionnaires, which are included in a written assessment report. Students select a real world health problem and population to be the focus of assessment research during the semester and in subsequent related courses: PUBH 5120 and 5130.

PUBH 5120 Health Program Planning and Evaluation (3 credits)—*Prerequisite: PUBH 5110 or permission of the instructor.* This course focuses on the planning of specific health programs and services to meet needs identified in PUBH 5110. Students are guided through the process of developing a written proposal focused on a health intervention using evaluation methods to determine its effectiveness. Once the program is formally proposed, students develop and pretest program content, materials, and evaluation tools targeting the identified population and community health issue investigated.

PUBH 5125 Rural Health Research and Practice (3 credits) — *Prerequisite: PUBH 5400 Principles of Epidemiology or permission of instructor. PUBH 5200 Social and Behavioral Foundations of Public Health or permission of instructor. Co-requisite: PUBH 5377 — Health Communications or permission of instructor.* This interdisciplinary course with nursing, medicine, public health and other disciplines is the first of a two-semester series of courses which allows students to develop an understanding of rural health issues using community-based participatory research methodology and theory relevant to health sciences. Student and faculty teams partner with rural communities to assess health priorities and develop plans to address identified needs. Both quantitative and qualitative evaluative methods are utilized to assess and analyze health status indicators using appropriate technology.

PUBH 5130 Consulting and Implementation of Health Programs and Services (3 credits)—*Prerequisite: PUBH 5120 or permission of the instructor.* Building on experiences in previous courses in the program sequence, this course focuses on implementation and evaluation of specific health programs and services that students have designed for community and organization settings. The course integrates guided consultative activities involving group process, training, interpersonal communication, and organizational and community development. The final product is a written research report of the health promotion intervention.

PUBH 5135 Rural Health Projects (3 credits)—*Prerequisite: PUBH-5125 Rural Health Research and Practice or permission of instructor.* In this course students from nursing, medicine, public health and other disciplines work in interdisciplinary

teams to develop a community-based health proposal in collaboration with their rural community partners. Through implementing and evaluating the proposed community-based project, students gain hands-on experience in using participatory methods to promote the health of a selected rural population. Students enhance their formal presentation skills through presenting the results of their community-based health project.

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 I (3 credits)—This course provides 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 5330 Statistical Methods in Epidemiology (3 credits)—*Prerequisites: PUBH 5310 and 5400.* This is an intermediate class in basic statistical methods used with epidemiological research. This basic skills class focuses on the theory and rationale of the statistical methods used for data analysis. Specific statistical methods will be presented, as well as exercises to refine the student's skill with data analyses. The class content is presented from a practical perspective. The emphasis of the course is on understanding the fundamental measures, principles of hypothesis testing, and statistical interpretation. A general knowledge of statistics and epidemiological methods is expected, as well as basic computer literacy (SAS or SPSS specifically), and familiarity with intermediate-level biostatistics. The class is taught through lectures and classroom exercises to promote these applied skills. This course does not require intensive memorization (e.g., of formulae); rather it aims to provide in-depth training for epidemiological reasoning, calculations, and research methods using statistical analyses and contemporary technology.

PUBH 5340 Health Appraisal Techniques (3 credits)—This course discusses the application of health appraisal and counseling to determine the health status of selected populations. Records of findings, and the remediation of health problems with appropriate health service personnel are emphasized.

PUBH 5350 Biostatistics II (3 credits)—*Prerequisite(s): PUBH 5310 or equivalent.* This course introduces advanced statistical techniques. It includes lectures and comprehensive individual projects. The lectures cover topics on linear correlation, simple linear regression, multiple linear regression, and logistic regression. Comprehensive individual projects involve exercises in data analysis and application of a statistical package.

PUBH 5357 Thanatology (3 credits)—This course 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 natural process of life.

PUBH 5360 Clinical Research: Design and Analysis (3 credits)—This intermediate-level biostatistics course presumes the completion of PUBH 5310 and 5400 or similar content (e.g., topical content from medical and nursing school is acceptable). The design and analysis of clinical trial data is the central content area for this class. Specialized time-series methods used for clinical studies (e.g., sequential methods) are developed considerably as are the multivariable regression techniques of survival, and proportional hazards. Course content related to studies involving human subjects, (e.g., IRB, and HIPAA details) are included. The practical skills of composing "Methods" sections for research proposals and for professional literature publications are instructed and practiced. Sample size estimation and repeated measures (e.g., stopping rules) solutions are given particular coverage that may appeal to medical and nursing researchers.

PUBH/SPCH 5377 Health Communication (3 credits)—*Prerequisite(s): PUBH 5200, or permission of the instructor.* This course examines the interpersonal, group, organizational, and public communication processes that shape beliefs, decisions and behavior regarding health, sickness, and health care. Students explore the attitudes and actions of various 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 5400 Epidemiology I (3 credits)—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/PMNU/MGMT 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. It focuses on rural communities and is taught in a problem-solving, case project format with interdisciplinary team presentations and discussions.

PUBH 5405 Epidemiology II (3 credits)—*Prerequisite(s): PUBH 5400.* The purpose of this course is to further develop the methodological concepts underlying

the science of epidemiology. The material covered is intended to broaden and extend the student's understanding of the elements of study design, data analysis, and inference in epidemiologic research, including issues related to causation, bias, and confounding. The primary aim of the course is to provide a working knowledge of the fundamentals of epidemiology as well as to serve as a foundation for more advanced study of epidemiologic methods. The course consists of lectures and workshop sessions. The workshop sessions are designed to reinforce the concepts and topics covered in the lectures.

PUBH 5410 Statistical Software for the Health Professions (3 credits)—In this course, multiple computer software packages will be examined for their utility in health data analysis. Sample health data sets are analyzed using similar procedures from different packages. Strengths and weaknesses of the various packages are contrasted as they are applied to the needs of health data analysis.

PUBH 5420 Epidemiology of Chronic Disease (3 credits)—*Prerequisite(s): PUBH 5310 and PUBH 5400.* Chronic diseases are the major contributor to disability and death in the United States. This course covers the basic concepts of chronic disease from an epidemiologic perspective. Selected topics, including the major causes of death and disability due to chronic disease, will be covered.

PUBH 5430 Epidemiology of Infectious Disease (3 credits)—*Prerequisite(s): PUBH 5310 and PUBH 5400.* Infectious diseases remain an important public health problem, even in industrialized countries. This course covers many important groups of infectious diseases in the United States, focusing on the mode of transmission, epidemiology, risk factors, and prevention.

PUBH 5457 Emerging Technologies for the Health Professions (3 credits)—This course prepares health professionals for the ever changing technological workplace demands, introducing new technologies with practical applications. Students are taught skills to present and manipulate information in the electronic age and reduce repeated task/events into time-saving solutions. Health education and training strategies are combined with emerging digital tools to develop training components.

PUBH 5460 Environmental/Occupational Epidemiology (3 credits)—*Prerequisite(s): PUBH 5400 and ENVH 5100, or permission of the instructor.* This course introduces students to epidemiologic investigations of environmental and occupational health problems. Topics include both traditional and innovative subjects and strategies, such as the health effects associated with air and water contaminants, toxic waste sites, lead, and radiation, as well as environmental exposures that have received attention only recently, such as Agent Orange and electromagnetic fields. The course emphasized epidemiologic methods, particularly exposure assessment, modeling, cluster analysis, and sources of bias. Students gain experience in the critical review and design of related epidemiologic studies.

PUBH 5470 Spatial Epidemiology and Geographical Studies of Health (3 credits)—*Prerequisites: PUBH 5310 and PUBH 5400 or equivalent content.* This course instructs students in the special application of geographic pathology and data analysis techniques to interface with Geographic Information Systems. Much of the course content rests upon a grasp of epidemiological reasoning, e.g., outbreak investigation. The course focuses on non-parametric methods, for both exploratory analyses and peculiar data configurations. Emphasis is also placed on analyses using the techniques from the specialized software: CLUSTER. Advanced methods of analysis associated with contemporary surveillance applications are previewed (e.g., SATSCAN, BIOSENSE).

PUBH 5500 Health Service Administration (3 credits)—This 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 5505 Managing Health Care Organizations (3 credits)—*Prerequisite(s): PUBH 5500 or permission of instructor.* This course focuses on current 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/MGMT/PMNU 5525 Health Services Organization and Delivery (3 credits)—*Prerequisite(s): 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 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/MGMT/PMNU 5530 Health Care Organizations and Law (3 credits)—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 resource management, and the need for legal consultation.

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/PMNU/MGMT 5550 Human Resource Management in Health Organizations (3 credits)—This course focuses on the skills and concepts required to manage people in health service organizations, as well as the human resource implications of changes in the external environment. It focuses on the technical aspects of human resource management, as well as basic managerial skills.

PUBH/PMNU/MGMT 5590 Strategic Planning for Health Care (3 credits)—*Prerequisite(s): PUBH 5505 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 health information 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 5607 Gerontology and Health (3 credits)—This course examines the aging process and familiarizes the student with physical, physiological, psychological, and social changes which have an impact on health.

PUBH 5620 Hazards in the Workplace (3 credits)—This course focuses on the occupational hazards that have a significant and detectable effect on the health and well-being of employees. Various strategies used to ameliorate these problems will be evaluated.

PUBH 5707 International Health: An Overview of Problems and Issues (3 credits)—This course provides an overview of the patterns of health care delivery, public health practice, and the factors that inhibit or enable their applications among community groups and organizations around the world.

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)—In this course 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 as part of the required course activities.

PUBH 5907 Independent Study in Health Education (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 offers 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 5950 Research Seminar (3 credits)—This course will discuss the principles and procedures of research in public health. Students will use this course to develop their thesis proposal.

PUBH 5957 Special Topics in... (1-6 credits)—*Prerequisite(s): 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.

PUBH 5960 Thesis (3-6 credits)—*Prerequisite: Permission of student's academic advisor.*

PUBH 5970 Public Health Monograph (6 credits) — *Prerequisite: Permission of student's academic advisor.* In this course, students prepare a substantive paper on one or more aspects of public health theory or practice. The content may be based on any of several approved sources of data, including assessment and intervention methodologies completed within the Trilogy courses, or extensive review of the literature. All monographs will be prepared in a format appropriate for publication in an appropriate public health targeted medium.

PUBH 5989 Cooperative Education (1-3 credits)—*Prerequisite: Permission of student's academic advisor.* Students must work through the Cooperative Education Office prior to 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 credit)—*Prerequisite: Permission of student's academic advisor.* 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 academic advisor 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).

PUBH 6100 Environmental Concerns in Public Health (3 credits) — This course provides students with an in-depth understanding of the major

environmental issues impacting the public's health in the 21st century. Emphasis is placed on the influence of selected environmental agents of physical, chemical, biological, and ergonomic origin. The role of environmental risk assessment and policy and the prevention of environmentally-induced illnesses are examined in view of their impact on communities.

PUBH 6110 Social and Behavioral Determinants of Health and Disease (3 credits) — This course presents an in-depth analysis of factors contributing to health and disease in populations. It addresses concepts of health promotion, disease prevention, and health protection in light of modifiable and non-modifiable risk factors, including lifestyle behavior patterns, personality and cognitive processes, cultural and spiritual forces, socioeconomic status, age, race, gender, and environmental exposure. Students will explore relationships of these health determinants within the context of selected social and behavioral theories.

PUBH 6130 Public Health Leadership, Policy Development, and Ethics (3 credits) — This course introduces the conceptual, methodological, and ethical foundations of public health leadership leading to the development and analysis of public health policy at the federal, state, and local levels. An applied systematic approach to the practice of public health policy will be used, focusing on establishing evaluation criteria, identifying policy alternatives, using criteria to analyze alternatives, implementing the proposed policy, and evaluating the outcomes.

PUBH 6150 Evaluation Research in Public Health (3 credits) — *Prerequisites: PUBH 5350 and PUBH 5405.* This course focuses on all parts of the evaluation process as it applies to the field of public health. Outcome identification will be included as an integral part of this process. Both theoretical and applied perspectives within public health practice are covered, including design, conduct, and outcomes identification for public health program evaluations. The important components of study design, data collection, analysis, interpretation, and report writing are addressed.

PUBH 6160 Systems Approaches to Public Health Issues (3 credits) — This course uses a problem-based learning approach to systems thinking and modeling for critical public health concerns. Students integrate key population level theories (e.g., ecological, PRECEDE, organization, communication) with systems theory in a multilevel investigative process of public health assessment, organization, and evaluation. Case studies and interdisciplinary teamwork provide the tools for student inquiry and the resulting narrative and written reports.

PUBH 6170 Research Applications in Public Health (3 credits) — *Prerequisites: PUBH 5350 and PUBH 5405.* This advanced applications course emphasizes the development of proficiency in data management using common software packages used by public health professionals: Excel, Epi-Info, and SAS. Students will learn procedures for graphics preparation, significance testing, sub-group comparisons within target populations, reporting findings, and interpretation of results. Emphasis will be placed on the processing of public health data and preparing analytic products from them. In the process of their work, students will access emerging as well as existing public health databases and other resources of the Public Health Information Network.

PUBH 6195 Seminar in Public Health (1 credit) — This course provides doctoral students with the opportunity to interact with faculty, researchers, authors, and peers in the diverse arenas of public health practice and research. It employs readings, guest presentations, and group discussions to explore current trends in applied research and practice. Emphasis will be placed on research methods as well as outcomes.

PUBH 6210 Health Assessment and Surveillance Research (3 credits) — *Prerequisites: PUBH 5405 and PUBH 6170.* This course provides skills appropriate for the understanding and practice of public health assessment and surveillance. Emphasis is placed on the theory and techniques of health screening, survey research, and monitoring of health and disease in diverse populations. Students will learn the appropriate use and interpretation of preventive screening tests for the early detection of disease with significant public health implications, surveys useful in gathering health-related information, and selected regional or national data sets useful in the ongoing surveillance of disease in large populations.

PUBH 6220 Methods in Community Health Research (3 credits) — *Prerequisites: PUBH 5405 and PUBH 6170.* This course introduces a variety of qualitative, ethnographic, and observational research tools for investigating questions germane to public health. Students practice a variety of data collection and analytic methods including: direct observation, informant interviews, focus groups, and formal methods. Participatory and action research designs and methods are emphasized.

PUBH 6240 Organizing Communities for Health Action (3 credits) — This course provides students with a hands-on systems approach to the theory and practice of community organization for health action, including community mobilization, capacity building, developing and sustaining interdisciplinary collaborations, health education empowerment and evaluation, principles of cultural competency, grant writing, and design of community-based participatory research.

PUBH 6250 Evidence-Based Public Health: Best Practices in Community Health (3 credits) — This course provides skills for using an evidence-based approach to decision making for contemporary public health practitioners. It

introduces community health best practices and other evidence-based methods as components of a systematic approach to finding effective interventions to community health challenges in diverse populations.

PUBH 6410 Advanced Epidemiologic Analysis (3 credits) — *Prerequisites:* PUBH 5405 and PUBH 5350. This course emphasizes the theory and practice of multivariate epidemiologic data analysis. There is a focus on understanding the underlying principles and assumptions, practical application, and correct interpretation of the different epidemiologic multivariate models.

PUBH 6420 Applied Epidemiologic Analysis (3 credits) — *Prerequisites:* PUBH 5405, PUBH 5350, and PUBH 6410. This advanced course will focus on the application of previous training and understanding of epidemiology and biostatistics to real data and hands-on problems. The objective is to give students experience analyzing epidemiologic data and applying their understanding of key epidemiologic concepts to data analysis tasks they are likely to encounter in their careers.

PUBH 6435 Field Epidemiology (3 credits) — *Prerequisites:* PUBH 5405 and PUBH 5350. This course addresses the knowledge and skills necessary to successfully conduct an epidemiological investigation in a field setting. Topics included are questionnaire design, interview scheduling, data collection and analysis, cluster investigations, and the operational logistics required to successfully conduct epidemiological field investigation.

PUBH 6440 Cardiovascular Epidemiology (3 credits) — *Prerequisites:* PUBH 5400 and PUBH 5300. This course is intended to provide a detailed exposure to the topic of cardiovascular disease epidemiology. This includes the known risk factors and the recommendations for treatment and prevention of cardiovascular disease. Pertinent studies will be reviewed.

PUBH 6450 Cancer Epidemiology (3 credits) — *Prerequisites:* PUBH 5400 and PUBH 5300. This is a survey course of cancer epidemiology research, including activity of national programs in the United States and Europe. Preventive services, clinical care, outcomes research, and the impact of disparities related to cancer management and its outcomes will be studied. Specific cancer types will also be covered.

PUBH 6460 Reproductive and Perinatal Epidemiology (3 credits) — *Prerequisite:* PUBH 5405. This course provides an overview of reproductive and perinatal epidemiology. Topics include fertility, birth defects, fetal loss, preterm delivery, and the sequelae of adverse events during pregnancy for the developing infant. There will be an emphasis on understanding the public health dimensions of perinatal outcomes.

PUBH 6850 Doctor of Public Health Practicum (6 credits) — *Prerequisite:* *Permission of student's program advisor.* This course enables students to apply the knowledge and experience gained in their DrPH courses to real life public health situations and leadership challenges in professional and community settings. Student placements, developed in consultation with the student's practicum supervisor, will focus on providing students with new experiences in practicing public health at a professional level. Students will produce an analytical academic product either for publication or for presentation to the agency/organization.

PUBH 6960 Doctor of Public Health Dissertation (9 credits) — *Prerequisite:* *Permission of student's program advisor.* The purpose of the dissertation is to provide the student with the requisite knowledge and skills to make significant continuing contributions to the field of public health practice. Students will produce an acceptable dissertation (one that contributes to one or more of the theoretical, conceptual, empirical, and/or practice knowledge bases of public health practice).

Public Relations (PUBR)

PUBR 5301 Topics in Public Relations (1-6 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 (READ)

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. (spring, summer)

READ 5120 Teaching Reading (3 credits)—Current methods and theories of teaching: phonics, other word recognition and analysis skills, comprehension.

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. (fall, spring)

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. (fall, summer)

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 5231 Advanced Diagnostic Procedures (3 credits)—*Prerequisite(s):* READ 5027. Supervised individual and group diagnostic procedures in reading and other language arts; may be repeated. (fall, spring)

READ 5241 Practicum (1-3 credits)—*Prerequisite(s):* 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 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. (fall, spring, summer)

READ 5441 Reading/Communications K-6: Block I (6 credits) — *Prerequisite:* *Admission to teacher education. Corequisite:* READ 5442. This course focuses on the objectives, materials, and techniques for teaching reading, writing, listening, and speaking in grades K-6 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. (fall)

READ 5442 Reading and Communication Clinical Field Experience K-6 (1 credit) — *Prerequisite:* *Admission to teacher education. Corequisite:* READ 5415. This course is a school-based clinical field experience. The course provides clinical field experiences in elementary reading/language arts/communications classrooms (K-6). (fall)

READ 5452 Guided Middle Grades Clinical Field Experience I 4-8 (1 credit) — *Prerequisite:* *Admission to teacher education. Corequisite:* READ 5437. This course is a school-based clinical field experience. The course provides clinical field experiences in middle school reading/language arts classrooms (4-8). (fall)

READ 5453 Advanced Middle Grades English Language Arts (4-8) (2 credits) — *Prerequisite:* *Admission to teacher education MAT students ONLY. Corequisites:* EDFN 5420, READ 5452. This course is designed to prepare the candidate for the English Language Arts classroom at middle grade education levels (4-8). It will be a course that allows for synthesis of what has been learned, in all prior courses, as the candidate develops and progresses as a professional educator. Various instructional strategies and assessments of learning will be explored within the framework of the classroom, the school, and the modern world as places where communities of learners live and interact. These will include selecting, planning, and organizing materials for instruction, integrating the English Language Arts with other content fields and technology, focusing instruction that addresses state and national standards, and utilizing performance-based assessment in the classroom. (spring)

READ 5750 Literacy Instruction in Linguistically Diverse Classroom (3 credits) — *Prerequisite:* READ 5120. This course is designed for classroom teachers who wish to supply extra support to English Language Learners (ELL) and to native English speaking students who lack optimal academic language proficiency and facilitation of content learning through informed literacy curriculum and methodology. (spring, even years)

READ 5900 Independent Study (1-6 credits) (as needed)

READ 5960 Thesis (3-6 credits)—*Prerequisite(s):* *Permission of the major advisor.* A major research project conducted and reported in approved research style. (fall, spring, summer)

READ 5957 Topics in... (1-6 credits)—*Prerequisite(s):* *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. (as needed)

Radio, Television, Film (RTVF)

RTVF 5401 Topics in Broadcasting (1-6 credits)

RTVF 5900 Independent Study in Broadcasting (1-3 credits)

Sport and Leisure Management (SALM)

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. (fall)

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 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.

SALM 5140 Issues and Trends in Leisure Management (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 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 emphasis of this course is on the current relationships between sport and society. (fall, odd years)

SALM 5220 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 Sport Management. The primary thrust of the course will be directed toward the modern day duties and responsibilities of a sport manager. Course content will vary with the evolution of the field of Sport Management. (fall)

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. (spring, even years)

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. (fall)

SALM 5231 Motorsport Operations (3 credits)—*Prerequisite(s): Graduate Student Status.* This course is designed to examine the administrative tasks of the modern motorsport professional and acquaint students with various strategies to ensure success in these tasks. Topics of study will include scheduling, delegating authority, decision-making, constructing and administering budgets, motivating and evaluating personnel, understanding motorsport governing bodies, and developing an understanding and appreciation of diversity issues related to the motorsport industry. (spring, even years)

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. (fall)

SALM 5233 Public Relations and Mass Media in Motorsports (3 credits)—*Prerequisite(s): Graduate Student Status.* This course will provide a framework for understanding the connection between the informational and commercial sides of motorsport information management. Emphasis will be placed on allowing students interested in motorsport management to acquire and refine effective ways of communicating, both internally and externally, with their constituencies. (fall, odd years)

SALM 5235 Sport Psychology (3 credits)—The application of psychological concepts and principles to sports participation and the sports setting. (spring)

SALM 5240 Risk Management and Assessment in Sports (3 credits)—*Prerequisite(s): 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. (spring, odd years)

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. (fall)

SALM 5244 Applied Motorsport Marketing (3 credits)—*Prerequisite(s): Graduate Student Status.* This course is designed to provide students with practical experiences in motorsport marketing. Emphasis will be placed on utilizing effective marketing techniques in an applied motorsport setting. (spring, odd years)

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. (spring)

SALM 5246 Financial Management and Sponsorship in Motorsports (3 credits)—*Prerequisite(s): Graduate Student Status.* This course is designed to provide students with comprehensive coverage of many traditional and innovative revenue acquisition and management methods available to motorsport organizations. (spring, even years)

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 sport management agency desired for the internship experience. (Students may be compensated for their work.) (fall, spring)

Science Education (SCED)

SCED 5417 Teaching Science in Secondary Schools (3 credits)—*Prerequisite(s): 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. (fall)

SCED 5454 Science for Middle Grades 4-8 (2 credits) — *Prerequisite(s): Admission to teacher education and READ 5452. Corequisite: CUA1 5458.* This course provides a comprehensive integrated science content perspective for initial teacher certification in Middle School Science in the areas of physical, life, earth, and space science. Conceptual understanding, content, skills, and dispositions in science including understanding of the nature of science are explored with an emphasis on integration with mathematics and other appropriate subject areas.

SCED 5527 Science Methods for Early Childhood (3 credits)—*Prerequisite(s): 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. (as requested)

SCED 5904 Independent Study in Science (1-6 credits) (as needed)

SCED 5957 Topics in... (1-6 credits)—*Prerequisite(s): 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. (as needed)

Sociology (SOCI)

SOCI 5057 Community Sociology (3 credits)—An examination of the issues and concepts of community and the principles of community-based research using theoretical and applied approaches.

SOCI 5087 The Family in Transition (3 credits)—*Prerequisite(s): Sociology 1020 or permission of instructor.* An analysis of the changing family with an emphasis on family theory. (variable)

SOCI 5110 Contemporary Social Theory (3 credits)—*Prerequisite(s): Sociology 5807 or permission of instructor.* This course presents an overview of major schools of social theory. (spring)

SOCI 5157 Sociology of the City (3 credits)—*Prerequisite(s): Permission of the instructor.* 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)

SOCI 5210 Sociological Research (3 credits)—*Prerequisite(s): Permission of instructor.* An overview of the entire research process. Topics include theory and hypotheses, sampling techniques, research designs, and data analysis. (fall)

SOCI 5257 Power, Wealth, and Poverty (3 credits)—*Prerequisite(s): 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)

SOCI 5315 Seminar in Crime and Delinquency (3 credits)—*Prerequisite(s): Permission of instructor.* An advanced overview of the most important theories and problems in crime and delinquency. (variable)

SOCI 5320 Program Evaluation (3 credits)—*Prerequisite(s): 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. The course will also address the purposes and uses of evaluations, the politics of evaluation, and the reporting of evaluation studies. (variable)

SOCI 5337 Social Psychology (3 credits)—*Prerequisite(s): Sociology 1020 or permission of instructor.* Study of social interaction, the development of self, and the social construction of reality. (variable)

SOCI 5444 Applied Data Analysis for the Social Sciences (3 credits)—*Prerequisite(s): 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)

SOCI 5500 Topical Seminar (3 credits)—*Prerequisite(s): Permission of instructor.* Study of current specialized area of sociological interest. May be repeated for credit. (variable)

SOCI 5507 Sociology of the Aging (3 credits)—*Prerequisite(s): 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)

SOCI 5557 Population (3 credits) — Major population characteristics, trends, and problems, primarily those of the United States. (variable)

SOCI 5567 Scottish Ethnology (3 credits)—A survey of Scottish ethnic and regional groups and their folk traditions. Topics covered include life history, material culture, subsistence patterns, folk narrative and beliefs and customs.

SOCI 5620 Sociology of Age and the Life Course (3 credits)—*Prerequisite(s): 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)

SOCI 5690 Documenting Community Traditions (3 credits) — This cross-disciplinary seminar involves fieldwork in Appalachian communities seeking cultural or economic sustainability through the development of their traditional and contemporary assets.

SOCI 5807 Modern Social Theory (3 credits)—*Prerequisite(s): 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)

SOCI 5850 Supervised Internship (1-6 credits)—*Prerequisite(s): 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)

SOCI 5870 Internship Placement Report (3 credits)—An analytical report demonstrating the varied ways in which sociological tools were applied in the internship experience. (variable)

SOCI 5900 Independent Study in Sociology (1-3 credits)—*Prerequisite(s): Permission of instructor.* (variable)

SOCI 5957 Special Topics in Sociology/ Anthropology (1-6 credits)—*Prerequisite(s): 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)

SOCI 5960 Thesis (1-3 credits)—*Prerequisite(s): 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)

SOCI 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).

SOCI 5989-99 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 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)

Sociology and Anthropology (SOAA)

SOAA 5357 Mass Communications and Popular Culture (3 credits)—*Prerequisite(s): 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 5627 Ethnographic Fieldwork Techniques (3 credits)—*Prerequisite(s): 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 also stressed. (spring)

SOAA 5820 Skills in Applied Sociology and Anthropology (3 credits)—*Prerequisite(s): Permission of instructor.* An examination of how sociologists and anthropologists apply their theoretical knowledge and research skills, including formulation, implementation, and evaluation of programs designed to solve human problems. (variable)

SOAA 5907 The Foodways of Appalachia (3 credits) — Traditional and developing food cultures of the Mountain South. Topics include: the historical roots of Appalachian cookery; food and class in Appalachia; Native American and African influences on mountain cuisine; immigrant cooking in the mountains; the rituals of the mountain table; the products of the land and larder; traditional food preservation techniques and beliefs; and the emergence and viability of sustainable agriculture and aquaculture.

Social Work (SOWK)

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, this 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 5103 Social Work Practice Foundation I (3 credits)—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 5104 Social Welfare Policy and Services (3 credits)—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 240-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/PMNU 5110 Interdisciplinary Approaches to Bioethical Issues (3 credits)—*Prerequisite(s): 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)

SOWK 5202 Human Behavior in the Social Environment II (3 credits)—*Prerequisite(s): SOWK 5102.* Offered during the second semester, 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 5203 Social Work Practice Foundations II (3 credits)—*Prerequisite(s): SOWK 5103.* 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 5204 Social Welfare Policy Analysis (3 credits)—*Prerequisite(s): SOWK 5104.* Emphasis is 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. Students will begin developing 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.

SOWK 5206 Field Practicum II (4 credits)—*Prerequisite(s): SOWK 5106.* Offered currently with HBSE II and Practice II during the second semester, this 240-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 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 the concentration year. 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 clinical practice.

SOWK 5305 Social Work Research II (3 credits)—*Prerequisite(s): SOWK 5205 or Advanced Standing Status.* This second research course in the research sequence is the first of two courses taught during the concentration year. Students are taught the skills and knowledge of integrating traditional research methods and technology into practice evaluation. Students revisit the quantitative and qualitative research methods and develop a research study for evaluation of practice.

SOWK 5306 Advanced Field Practicum I (3 credits)—This 240 clock-hour course focuses on the 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 course provides students 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 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.

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.

SOWK 5405 Social Work Research III (3 credits)—*Prerequisite(s): SOWK 5305.* This course requires that students develop the skills and knowledge of program evaluation, including collecting and analyzing data, discussion of findings and implications, completion of a paper integrating a literature review and methodology sections, and develop a presentation of their findings. Research classes emphasize the link between practice and research and the development of research skills for knowledge building.

SOWK 5406 Advanced Field Practicum II (1-9 credits)—The final 360 clock-hour advanced practice practicum is offered during the fourth semester. Focus in this course is on the acquisition of advanced skills in working with small groups and organizations.

SOWK 5430 Psychopathology in Social Work Practice (3 credits)—This 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.

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 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. Three-credit courses may be taken on different topics. This course is offered both semesters of the academic year. (variable)

Spanish (SPAN)

SPAN 5003 Colonial Literature (3 credits)—*Prerequisite(s): Spanish 3113.* A study of the development of literature in Spanish-America during the 16th, 17th, and 18th centuries.

SPAN 5007 Golden Age Drama (3 credits)—*Prerequisite(s): SPAN 3313 or SPAN 3513.* 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)—*Prerequisite(s): SPAN 3113.* 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)—*Prerequisite(s): SPAN 3113.* 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 5103 Contemporary Spanish Novel (3 credits)—*Prerequisite(s): Spanish 3113.* Major works of the post-Civil War Spanish novel.

SPAN 5107 Cervantes (3 credits)—*Prerequisite(s): SPAN 3313 or SPAN 3513.* A study of the representative works of Miguel de Cervantes Saavedra, with special emphasis on the *Quijote*.

SPAN 5117 Hispanic Cinema (3 credits)—*Prerequisite(s): SPAN 3313, 3413, 3513, or 3613.* 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: SPAN 2020 or equivalent.* This is a community-based course which provides students with the 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 meaningful 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: SPAN 3113.* Basic translation skills are taught with a focus on health care or legal translation during alternate years. Students prepare written translation exercises that are discussed and corrected in class. This class includes a ten (10) hour service-learning requirement.

SPAN 5147 Interpretation and Community Outreach (3 credits)—*Prerequisite: SPAN 3113.* The basic interpretation skills of sight translation, consecutive, and simultaneous interpretation are taught with a focus on health care and legal interpretation during alternate years. Students prepare oral interpretation exercises that are presented and critiqued in class. This class includes a ten (10) hour service-learning requirement.

SPAN 5203 Contemporary Spanish-American Novel (3 credits)—*Prerequisite(s): Spanish 3113.* Major works of the Spanish-American novel since World War II.

SPAN 5207 19th Century Spanish Literature (3 credits)—*Prerequisite(s): SPAN 3313 or SPAN 3513.* Selected works by the principal 19th-century novelists and dramatists of Spain.

SPAN 5303 Contemporary Spanish Theatre (3 credits)—*Prerequisite(s): Spanish 3113.* A study of the major dramatic works of post-Civil War Spain.

SPAN 5307 The Generation of '98 (3 credits)—*Prerequisite(s): SPAN 3313 or SPAN 3513.* 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 5403 Contemporary Spanish-American Theatre (3 credits)—*Prerequisite(s): Spanish 3113.* A study of the major authors and dramatic works in Spanish-America since World War II.

SPAN 5407 20th Century Spanish Literature (3 credits)—*Prerequisite(s): SPAN 3313 or SPAN 3513.* Selected works by the principal 20th-century novelists and dramatists of Spain.

SPAN 5507 Spanish Short Story (3 credits)—*Prerequisite(s): SPAN 3313, 3413, 3513, or 3613.* Spanish and Spanish-American short stories from the 19th and 20th centuries.

SPAN 5607 Modernist Movement in Spanish America (3 credits)—*Prerequisite(s): SPAN 3413 or SPAN 3613.* A study of Rubén Darío, his contemporaries, and followers.

SPAN 5707 Spanish-American Theatre (3 credits)—*Prerequisite(s): SPAN 3413 or SPAN 3613.* Selected works of the principal 19th- and 20th-century dramatists of Spanish America.

SPAN 5737 Art at the Prado Museum (3 credits)—*Prerequisite(s): Spanish 3113.* 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(s): SPAN 3413 or SPAN 3613.* Selected works by the principal novelists of Spanish America.

SPAN 5903 Special Studies in Spanish (1-6 credits)—*Prerequisite(s): Spanish 3113.* 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.

SPAN 5957 Topics in Spanish (1-6 credits)—*Prerequisite(s): Spanish 3113.* This course gives students an opportunity to study special problems and new developments in the field of Spanish.

Speech (SPCH)

SPCH 5100 Foundations of Communication Studies (3 credits) — Familiarizes students with the multiple areas of inquiry in the discipline of Communication and teaches disciplinary standards for advanced-level thinking, writing and research.

SPCH 5200 Gender and Communication (3 credits)—This course investigates how communication practices shape, reinforce, or resist definitions and experiences of gender.

SPCH 5300 Qualitative Research in Communication (3 credits) — An applied examination of qualitative research methods used in Communication study.

SPCH 5317 Rhetoric and Public Address (3 credits)—Historical study of rhetorical theory as applied to manuscripts, speakers, and audiences.

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 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 5380 Sexual Health Communication (3 credits) — This course examines the role of communication in promoting, maintaining, and hindering sexual health. It is a study of how interpersonal, organizational, and public communication impact sexual health, as well as how sexual health issues impact the dimensions of communication. This course examines both academic and public discourse affecting attitudes and actions.

SPCH 5607 Speech Practicum (3 credits, repeatable)—*Prerequisite(s): Permission of instructor.* May be repeated. A practical study experience with appropriate supportive research.

SPCH 5900 Independent Study in Speech Communication (1-3 credits)

SPCH 5950 Research Methods-Speech (3 credits)

SPCH 5957 Special Topics in Speech (2-6 credits)

SPCH 5960 Thesis (1-6 credits)—*Prerequisite(s):* 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).

Special Education (SPED)

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 of research questions, reporting their results to their peer audience for critical review. (spring)

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 six 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 infancy/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 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 5250 Special Education Workshop (1-3 credits)—Special workshops covering various types of exceptionality. (fall, even years)

SPED 5347 Vocational Preparation for Individuals with Disabilities (3 credits)—*Prerequisite(s): 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 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. (fall)

SPED 5410 Preclinical Experience: Behavior Management (1 credit)—*Corequisite(s): 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. (spring)

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 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. (fall, not 2009)

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. (spring)

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. (spring)

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. (spring)

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 special education. 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. (fall, spring)

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 those electing a NON-CERTIFICATION option. (fall, spring)

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 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. (fall, not 2009)

SPED 5725 Management Strategies for Severe Behaviors (3 credits)—*Corequisite(s): 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. (spring)

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. (fall, not 2009)

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. (fall, not 2009)

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. (spring)

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. (fall, spring)

SPED 5957 Topics in Special Education (1-6 credits) (fall)

Storytelling (STOR)

STOR 5147 Basic Storytelling (3 credits)—Study of and practice in storytelling. Use of storytelling in various settings including classrooms, libraries, churches, homes, and as public events. (fall, summer)

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. (fall, summer)
NOTE: There are separate sections of this course for Reading and Storytelling majors.

STOR 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. (fall)

STOR 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. (summer)

STOR 5817 Practical Applications of Storytelling: National Storytelling Festival Experience (1 credit)—*Prerequisite(s): 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. (fall)

STOR 5827 Storytelling Resource Evaluation (1-6 credits) — *Prerequisite: Permission of instructor.* This course is designed to prepare the student to expertly evaluate storytelling resources. May be repeated (fall and spring semesters)

STOR 5830 Storytelling Institutes (1-2 credits)—*Prerequisite(s): Permission of instructor.* This course is designed to develop and refine the student's ability as a storyteller. (summer)

STOR 5840 Story Dramatization (1-3 credits)—*Prerequisite(s): Permission of instructor.* This course provides an introduction to creative drama techniques for the classroom, the library, or in storytelling performance. (spring)

STOR 5850 Story Performance (1-3 credits)—*Prerequisite(s): 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. (as needed)

STOR 5860 Story Crafting (1-3 credits)—*Prerequisite(s): 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. (as needed)

STOR 5870 Multicultural Storytelling (1-3 credits)—*Prerequisite(s): Permission of instructor.* This course provides an overview of multicultural storytelling and an examination of the research on the impact of specific cultures on the storytelling medium. May be repeated for a maximum of (up to) three semester hours of credit. (as needed)

STOR 5880 Storytelling Journal Ed. and Pub. (1 credit)—*Prerequisite(s): 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. (fall, spring)

STOR 5890 Historical and Psychological Foundations of Storytelling (3 credits)—*Prerequisite(s): Permission of instructor.* This course analyzes the historical aspects of the story/content, the teller/delivery, and the audience/reception. (spring)

STOR 5900 Independent Study (1-6 credits) (as needed)

STOR 5957 Topics in... (1-6 credits)—*Prerequisite(s): 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. (as needed)

STOR 5960 Thesis (3-6 credits)—*Prerequisite(s): Permission of the major advisor.* A major research project conducted and reported in approved research style. (fall, spring, summer)

STOR 5961 Storytelling Capstone Project (Non-Thesis) (3 credits)—*Prerequisite(s): Core and Concentration requirements or permission of advisor.* A major creative, research, or service-based piece of work. Flexible format that can combine written work with performance and audio- or videotape documentation. (fall, spring, summer)

STOR 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). (fall, spring, summer)

Surveying and Mapping (SURV)

SURV 5110 Physical Geodesy (3 credits)—*Prerequisite(s): 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. (on demand)

SURV 5517 Photogrammetry (4 credits)—*Prerequisite(s): 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. (fall, even years)

SURV 5537 Land Boundary Location (4 credits)—*Prerequisite(s): 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. (fall, even years)

SURV 5547 Land Subdivision and Platting (4 credits)—*Prerequisite(s): 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. (fall, even years)

SURV 5567 Positioning with GPS (3 credits)—*Prerequisite(s): 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. (fall, even years)

SURV 5617 Digital Imagery Processing (3 credits)—*Prerequisite(s): 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. (fall, even years)

Theatre (THEA)

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)—*Prerequisite(s): 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(s): 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(s): 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(s): 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(s): 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(s): 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 (1-9 credits)—*Prerequisite(s): 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(s): 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(s): Permission of instructor through audition.* Participation in rehearsals and performance of an ETSU Summer Theatre production under faculty or guest artist direction.

THEA 5960 Thesis (1-6 credits)—*Prerequisite(s): Consent of instructor.* A research project developed and written under the supervision of a faculty committee.

THEA 5957 Special Topics in Theatre (1-6 credits)

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).

Urban Studies (URBS)

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.

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.

GRADUATE FACULTY

- Agrawal, Alok (2002) Associate Professor** **Pharmacology**
B.S., 1981 and M.S., 1984 Banaras Hindu University, India;
Ph.D., 1989, Visva Bharati University, India.
- Ahmad, Zulfigar (2006) Assistant Professor** **Biological Sciences**
B.S., 1986, Delhi University;
M.S., 1988 and Ph.D., 1992, Tamia Millia Islamia.
- Akin, Faith Wurm (2006) Associate Professor** **Communicative Disorders**
B.A., 1984, University of Tennessee, Knoxville;
M.S., 1987, University of Texas, Dallas;
Ph.D., 1997, Vanderbilt University.
- Alavi, Jafar (1985) Professor** **Economics and Finance**
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.
- Aldrich, Timothy E. (2005) Associate Professor** **Biostatistics/Epidemiology**
B.S., 1972 and M.P.H., 1974, University of Alabama, Birmingham;
Ph.D., 1985, University of Texas.
- 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.
- Alley, Nancy M. (1972) Professor** **Family/Community Nursing**
Executive Associate Dean
B.S.N., 1968, Medical College of Virginia;
M.S., 1972, Virginia Commonwealth University;
Ph.D., 1987, University of Tennessee.
- 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.
College of Arts and Sciences Service Award, 1998 and Research Award, 2002.
ETSU Faculty Senate President 2007-2008.
- Anderson, James L. (2002) Assistant Professor** **Interim Chair, Biostatistics/Epidemiology**
B.S., 1974, Walla Walla College;
M.D., 1977, and M.P.H., 1989, Loma Linda University;
Ph.D., 2002, University of Texas.
- Anderson, Judith R. (2005) Associate Professor** **Chair, Professional Roles/Mental Health Nursing**
B.S.N., 1965 and M.Ed., 1967, University of Virginia;
M.S.N., 1979, University of Texas at Arlington;
Ph.D., 1988, University of Pennsylvania;
APRN certificate, 1997, Boston College.
- Anthony, Murray S. (1972) Professor** **Accountancy**
B.B.A., 1966 and M.B.A., 1967, Memphis State University;
Ph.D., 1975, University of Missouri;
C.P.A., Tennessee.
- Antkiewicz, Henry J. (1988) Professor** **History**
B.A., 1963 and M.A., 1967, University of Michigan;
Ph.D., 1976, Ohio State 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.
- Arnall, David Alan (2005) Professor** **Chair, Physical Therapy**
Bs.P.T., 1977, University of Utah, Salt Lake City;
Ph.D., 1985, Brigham Young University, Provo, 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.
- 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.
- Baisden, Ronald H. (1978) Professor** **Anatomy and Cell Biology**
B.S., 1968 and Ph.D., 1973, University of Florida.
- Barker, Jennifer (2008) Assistant Professor** **English**
B.A., 1990, Tulane University;
M.F.A., 1992, University of Oregon;
M.A., 1997, and Ph.D., 2005, Indiana University.
- Barnes, Tammy (2004) Clinical Instructor** **Curriculum and Instruction**
B.S., 1987, M.Ed., 1998, and Ed.D., 2003, East Tennessee State University.
- Barnhart, Robert C. (1996) Assistant Professor** **Physical Therapy**
Academic Coordinator of Clinical Education
B.A., 1977, West Virginia Wesleyan College;
Certificate in Physical Therapy, Emory University School of Medicine, 1979;
M.S., 1992, University of Tennessee, Knoxville;
Sc.D.P.T., University of Tennessee Health Science Center.
- Barnum, Amy S. (2000) Archivist** **Appalachian Studies and Services**
B.A., 1977 and M.L.S., 1980, State University of New York.
- Barrett, Martin L. (1994) Professor** **Assistant Chair, 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.
- Barton, Alison L. (2005) Assistant Professor** **Human Development and Learning**
B.A., 1993, University of Kentucky;
M.A., 1997 and Ph.D., 2001, Northern Illinois University.
- Bartoszuk, Karin (2005) Assistant Professor** **Human Development and Learning**
B.S., 1995 and M.S., 1996, Tarleton Central Texas (formerly University of Central Texas);
Ph.D., 2002, Auburn University.
- Baryla, Edward A., Jr. (1995) Associate Professor** **Chair, Economics and Finance**
B.A., 1982, and M.B.A., 1990, University of Scranton;
M.A., 1994 and Ph.D., 1995, University of Alabama.
- Basham, Pepper D. (2006) Clinical Instructor** **Communicative Disorders**
B.S., 1997 and M.S., 1999, Radford University.
- Baylor, Tim (2007) Instructor** **Assistant Dean for Public Health Practice, Health Services Administration**
B.S., 1968, Virginia Polytechnic Institute;
M.S., 1989, University of Houston-Clear Lake.
- Baxter, Colin F. (1971) Professor** **History Faculty Emeritus**
B.S., 1961, East Tennessee State University;
M.A., 1963 and Ph.D., 1965, University of Georgia.
Distinguished Faculty Award, 1995.
- Beck, Jeffrey P. (1993) Professor** **English Associate Dean, School of Graduate Studies**
B.A., 1986, University of Iowa;
M.A., 1988 and Ph.D., 1993, Indiana University.
- 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.

- Beeler, Robert (2007) Assistant Professor** **Mathematics**
 B.S., 2001 and M.S., 2002, University of Tennessee, Knoxville;
 Ph.D., 2007, Clemson University.
- Behringer, Bruce A. (1992) Assistant Vice President** **Rural and
 Community Health and Community Partnerships**
 B.S., 1972, Pennsylvania State University;
 M.P.H., 1978, University of North Carolina.
- Berg, Gary G. (1987) Associate Professor** **Accountancy**
 B.A., 1973, University of South Florida;
 M.B.A., 1981, Florida Atlantic University;
 Ph.D., 1987, Texas A&M University; CPA, Florida.
- Bettis, Glenn E. (2000) Senior Affiliate Faculty** **Educational
 Leadership and Policy Analysis**
 B.S., 1966, and M.S., 1967, East Tennessee State University;
 Ph.D., 1973, Ohio State University.
- Bishop, Creg S. (1977) Professor** **Environmental Health
 Faculty Emeritus**
 B.S.E.H., 1969, and M.S.E.H., 1973, East Tennessee State University;
 Ph.D., 1977, University of Kansas.
- Bishop, Wilsie S. (1978) Professor** **Health Services Administration
 University Chief Operating Officer and
 Vice President for Health Affairs**
 B.S.N., 1970, Medical College of Virginia;
 M.S.Ed., 1976, University of Southern California;
 M.S.N., 1978, Virginia Commonwealth University;
 D.P.A., 1989, University of Southern California.
- Bitter, James R. (1995) Professor** **Human Development
 and Learning**
 B.A., 1969, Gonzaga University;
 M.Ed., 1971 and Ed.D., 1975, Idaho State University.
- Blackhart, Ginette C. (2006) Assistant Professor** **Psychology**
 B.S., 2001, Eastern Washington University;
 M.S., 2003 and Ph.D., 2005, Florida State University.
- Blackman, Mary Dave (1997) Associate Professor** **Music**
 B.A., 1978 and M.M.Ed., 1984, University of South Carolina;
 Ph.D., 1989, University of Texas-Austin.
- 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.
- Blanton, William Hugh (1999) Associate Professor** **Technology
 and Geomatics**
 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.
- Blaustein, Richard J. (1970) Professor** **Sociology and
 Anthropology
 Faculty Emeritus**
 B.A., 1966, Brooklyn College;
 M.A., 1969 and Ph.D., 1975 Indiana University.
- 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.
- Boggs, Teresa L. (1998) Assistant Professor** **Communicative
 Disorders**
 B.S., 1988 and M.S., 1991, East Tennessee State University.
- Branscomb, Ernest J. (1972) Professor** **English
 Faculty Emeritus**
 B.A., 1965, Duke University;
 M.A., 1967 and Ph.D., 1972, University of North Carolina.
- Braswell, Michael C. (1977) Professor** **Criminal Justice
 and Criminology
 Faculty Emeritus**
 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.
- Breese, Ute H. (2000) Assistant Professor** **Physical Therapy**
 B.S., 1977, State University of New York;
 M.Ed., 1998, East Tennessee State University;
 Ph.D., 2007, University of Tennessee – Knoxville.
- Breuel, Kevin F. (1992) Associate Professor** **OB/GYN
 Adjunct Faculty, Physiology/Biological Science/
 Anatomy and Cell Biology**
 B.S., 1982, Western Illinois University;
 M.S., 1985, Clemson University;
 Ph.D., 1991, West Virginia University.
- Brewster, Karen (2000) Associate Professor** **Communication**
 B.A., 1979, East Tennessee State University;
 M.F.A., 1982, Michigan State University.
- Broderick, Jane T. (2003) Associate Professor** **Human
 Development and Learning**
 B.F.A., 1976, Pratt Institute;
 M.A., 1996, Vermont College of Norwich;
 Ed.D., 2003, University of Massachusetts-Amherst.
- Brown, Amelia G. (1979) Professor** **Family & Consumer Sciences
 and Associate Dean for Articulated Programs**
 B.S., 1969, East Tennessee State University;
 M.S., 1971, University of Tennessee;
 Ph.D., 1975, Kansas 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) Associate Professor** **Psychology**
 B.S., 1992, University of Oklahoma;
 M.S., 1995 and Ph.D., 1998, University of Kentucky.
- Brown, Stacy D. (2007) Assistant Professor** **Pharmaceutical
 Sciences**
 B.S., 1998, University of Tennessee at Chattanooga;
 Ph.D., 2002, University of Georgia, College of Pharmacy.
- Buerkle, C. Wesley (2005) Assistant Professor** **Communication**
 B.A., 1997, Biola University;
 M.A., 2000, Arizona State University;
 Ph.D., 2004, Louisiana State University.
- 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.
 College of Arts and Sciences Service Award, 2008.
- Burke, Kevin L. (2005) Professor** **Chair, Kinesiology, Leisure
 and Sport Sciences**
 B.A., 1982, Belmont Abbey College;
 M.A., 1984, East Carolina University;
 Ph.D., 1988, Florida State University;
 Ed.S., 2002, Georgia Southern University.
- Burkette, Gary D. (1992) Associate Professor** **Chair, Accountancy
 Director, M.Acc. Program**
 B.S., 1978, Wake Forest University;
 M.Acc., 1986 and Ph.D., 1994, Virginia Tech.
- Burnley, Cynthia S. (1969) Associate Professor** **Sociology
 and Anthropology
 Director, Outcomes Assessment
 Faculty Emerita**
 B.S., 1968, Tennessee Technological University;
 M.A., 1970 and Ph.D., 1979, University of Tennessee.

- Burrow, Troy E. (2000) Instructor** Environmental Health
B.S.E.H., 1965, Henderson State University;
M.S.E.H., 1974, East Tennessee State University.
- Byington, Randy L. (2006) Assistant Professor** Allied Health
Sciences
B.S., 1978, University of Virginia;
M.B.A., 1989 and Ed.D., 2003, East Tennessee State University.
- Cabello, Olga A. (2005) Associate Professor** Biochemistry and
Molecular Biology
B.S., 1985, University Iberoamericana;
M.S., 1987, Nacional Autonoma;
Ph.D., 1994, Baylor College of Medicine.
- Cajka, Karen (2004) Associate Professor** English
B.A., 1988, University of Pennsylvania;
M.A., 1996, Northeastern University;
Ph.D., 2003, University of Connecticut.
- Calhoun, Larry D. (2005) Professor** Pharmacy Practice
Dean, College of Pharmacy
B.S., 1972 and Pharm.D., 1973, University of Tennessee – Memphis.
- Calhoun, Sandy K. (2003) Assistant Professor** Professional Roles/
Mental Health Nursing
B.S.N., 2002 and M.S.N., 2003, East Tennessee State University.
- Cantrell, Peggy J. (1982) Professor** Psychology
B.S., 1976, Virginia Commonwealth University;
M.A., 1979 and Ph.D., 1982, University of Southern Mississippi.
- Caton, Benjamin D., III (1972) Professor** Music
B.S.M.E., 1968, East Tennessee State University;
M.A., 1972 and Ph.D., 1982, Ohio State University.
- Cavender, Anthony (1988) Professor** Sociology and Anthropology
B.A., 1971, Belmont College;
M.A., 1974 and Ph.D., 1981, University of Tennessee.
- Chakraborty, Ranjan N. (2001) Associate Professor** Interim Chair,
Health Sciences
B.S., 1979, Gujarat University, India;
M.S., 1981, University of Baroda, India;
Ph.D., 1993, Sardar Patel University, India.
- Champney, W. Scott, (1982) Adjunct Faculty** Biochemistry and
Molecular Biology
A.B., 1965, University of Rochester;
Ph.D., 1970, State University of New York-Buffalo.
ETSU Distinguished Faculty Award, 2000.
- Chang, Guanghsu A. (2004) Associate Professor** Technology
and Geomatics
B.S., 1983, National Taiwan University of Science and Technology;
M.S., 1987 and Ph.D., 1991, University of Texas-Arlington.
- Chase, Patricia A. (2000) Associate Professor** Communicative
Disorders
B.S., 1975 and M.S., 1976, East Carolina University;
Ph.D., 1997, Vanderbilt University.
- Chen, Catherine (Kc) (2006) Assistant Professor** Geosciences
B.S., 1998, Nanjing University;
M.S., 2001, Beijing Normal University;
Ph.D., 2006, University of Cincinnati.
- Cherry, Shirley J. (2007) Assistant Professor** Program Director,
Radiography
B.S., 1990, Salem-Teikyo University;
M.B.A., 1995, Kent State University
- 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.
- Chu, Ting-Heng (2001) Assistant Professor** Economics and
Finance
B.A., 1992, National Chung-Hsing University, Taipai;
M.B.A., 1995, and Ph.D., 2002, University of Texas-Arlington.
- Chua, Balvin H. L. (1994) Professor** Pharmacology
B.S., 1969, National Taiwan University;
Ph.D., 1975, University of Wisconsin, Madison.
- 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
and Geomatics
B.S., 1975, Colorado State University;
M.S., 1978, University of Georgia;
Ph.D., 1980, North Carolina State University.
- Clements, Andrea D. (1995) Professor** Psychology
B.S., 1982, M.A., 1984, and Ph.D., 1991, University of Alabama.
- Close, David M. (1978) Professor** Physics and Astronomy
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) Associate Professor** English
Director, University Honors
B.A., 1993, University of North Carolina-Asheville;
M.A., 1995, Western Carolina University;
Ph.D., 2000, University of South Carolina.
- Coffey, Dennis (1999) Associate Professor** Technology and
Geomatics
B.A., 1972, Berea College;
M.A., 1975 and M.B.A., 1979, University of Alabama;
M.B.C., 1996, Auburn University;
Ph.D., 1988, University of Tennessee.
- Collins, Charles C. (2006) Professor** Pharmaceutical Sciences
B.S., 1977 and Ph.D., 1984, West Virginia 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.
- Cooley, Charles P. (2008) Assistant Professor** Adult Nursing
B.S.N., 1996, Central Methodist University;
M.S.N., 2001, Duke University.
- Copp, Martha (1993) Professor** Chair, Sociology and
Anthropology
B.S., 1984, Texas A&M University;
M.A., 1987 and Ph.D., 1993, University of North Carolina.
- Countermine, Terry A. (1990) Professor** Chair, Computer and
Information Sciences
B.S., 1965, Alliance College;
D.Ed., 1973, Pennsylvania 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.
- Creekmore, Jr., Freddy M. (2007) Associate Professor** Vice Chair,
Pharmacy Practice
B.S., 1989 and Pharm.D., 1990, University of Kentucky, College of Pharmacy.
- Creekmore, Kathryn A. (2007) Assistant Professor** Pharmacy
Practice
B.S., 1989 and Pharm.D., 1990, University of Minnesota, College of Pharmacy.
- Crofts, Thomas H. (2004) Assistant Professor** English
B.A., 1990, Bard College;
M.Phil., 1992, Trinity College, Dublin;
M.A., 1997 and Ph.D., 2003, University of Wisconsin.
- Cronin, Patrick J. (2001) Professor** Communication
Artist in Residence
B.A., 1963, LaSalle University;
M.S., 1968, Temple University.

- Crowe, Gayle (2007) Instructor Family/Community Nursing**
 B.S.N., 1986 and M.S.N., 1991, California State University, Long Beach.
- Cutspec, Patricia A. (2004) Assistant Professor Communication**
 B.A., 1982, Grove City College;
 M.A., 1984, University of Hartford;
 Ph.D., 1988, Purdue University.
- Czuchry, Andrew J. (1992) Professor Technology and Geomatics
 and 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.
- Dalton, Bruce O. (2003) Associate Professor Social Work**
 B.A., 1982, University of Michigan-Flint;
 M.S.W., 1988, University of Michigan;
 Ph.D., 1995, Rutgers University.
- Daniels, Harold L. (2000) Associate Professor Curriculum an
 Instruction**
 B.A., 1983 and M.A., 1993, Appalachian State University;
 Ph.D., 1996, Virginia Polytechnic Institute and State University.
- Davenport, Mary Jo (1997) Assistant Professor Physical Therapy**
 B.S. and Certificate in Physical Therapy, 1973, University of Michigan;
 M.S., 1990, Vanderbilt University.
- Davis, Don R. (2000) Associate Professor Art and Design**
 B.F.A., 1972, University of Florida;
 M.F.A., 1974, Rhode Island School of Design.
- Davis, T. Jason (2002) Assistant Professor Kinesiology, Leisure and
 Sport Sciences**
 B.S., 1994 and M.S., 1996, Georgia Southern University;
 Ph.D., 2003, Clemson University.
- Day, Ronnie M. (1968) Professor History
 Faculty Emeritus**
 B.A., 1963, Cumberland College;
 M.A., 1965 and Ph.D., 1971, Texas Christian University.
- Deadman, Alison P. (1998) Associate 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**
 Associate Dean, College of Arts and Sciences
 B.F.A., 1981, University of Texas-Austin;
 M.F.A., 1986, Arizona State University.
- Defoe, Dennis M. (1996) Associate Professor Anatomy and
 Cell Biology**
 B.A., 1974, University of Colorado;
 Ph.D., 1981, University of California.
- Deng, Shaozhong (2004) Assistant Professor Mathematics**
 B.S., 1988, Xi'an Jiaotong University;
 M.S., 1991, Nanjing University of Aeronautics and Astronautics;
 M.S., 1999 and Ph.D., 2001, North Carolina State University.
- Disque, J. Graham (1994) 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.
- Dixon, David (1989) Associate Professor Art and Design**
 B.A., 1976 and M.F.A., 1984, University of Tennessee.
- Dixon, Wallace E., Jr. (2002) Professor Chair, Psychology**
 B.A., 1985, University of Toledo;
 M.A., 1987 and Ph.D., 1990, Miami University.
- Dorgan, Kelly (2003) Associate Professor Communication**
 B.S., 1990, Appalachian State University;
 M.A., 1991, University of Kentucky;
 Ph.D., 2001, University of Georgia.
- Dosser, Marcia Edgeworth (2005) Clinical Instructor Curriculum
 and Instruction**
 B.S., 1979 and M.Ed., 1983, East Tennessee State University.
- Dotson, Deborah L. (2003) Assistant Professor Dental Hygiene**
 A.A.S., 1978, B.S., 1978, and M.A., 1985, East Tennessee State University.
- Dotterweich, Andrew R. (2008) Assistant Professor Kinesiology,
 Leisure and Sport Sciences**
 B.S., 1996, Clemson University;
 M.S.S., 1998, United States Sports Academy;
 Ph.D., 2005, Clemson University.
- Dotterweich, Douglas P. (1984) Professor Economics and Finance**
 B.A., 1973, University of Tennessee;
 M.A., 1975 and Ph.D., 1978, University of Delaware.
- Drane, J. Wanzer (2006) Associate Professor Biostatistics/
 Epidemiology**
 B.S., 1955, Northwestern State University of Louisiana;
 M.S., 1957, University of Florida;
 Ph.D., 1967, Emory University.
- Drinkard-Hawkshawe, Dorothy (1989) Professor History
 Director, African and African American Studies**
 B.A., 1960 and M.A., 1963, Howard University;
 Ph.D., 1974, Catholic University of America.
- Driskell, Katherine T. (1984) Professor Curriculum and Instruction
 Faculty Emeritus**
 B.S., 1963, George Peabody College;
 M.S., 1965, University of Wisconsin;
 Ph.D., 1977, University of Tennessee.
- Dula, Christopher S. (2004) Assistant Professor Psychology**
 B.A., B.S., 1996, University of North Carolina-Charlotte;
 M.A., 2000, Appalachian State University;
 Ph.D., 2003, Virginia Polytechnic Institute and State University.
- Dumond, Julie B. (2007) Assistant Professor Pharmacy Practice**
 B.S., 2000, Michigan State University;
 Pharm.D., 2004, University of Michigan.
- Dunham-Taylor, Janne (1998) Professor Professional Roles/
 Mental Health Nursing**
 B.S., 1968, Michigan State University;
 M.S., 1975 and Ph.D., 1982, University of Michigan.
- 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.
- Dyer, M. Wayne (1983) Professor Chair, Art and Design**
 B.S., 1973, Madison College;
 M.F.A., 1983, Radford University.
 ETSU Distinguished Faculty Award 1999.
- Edwards, Joellen B. (1989) Professor Family/Community Nursing**
 B.S.N., 1979, Ohio University;
 M.S.N., 1982, West Virginia University;
 Ph.D., 1988, Ohio University.
- Ekstrom, Michelle J. (2005) Clinical Instructor Communicative
 Disorders**
 B.S.Ed., 1998, Western Carolina University Honors College;
 M.S., 2000, East Tennessee State University.
- Elangovan, Saravanan (2005) Assistant Professor Communicative
 Disorders**
 B.Sc., 1995 and M.Sc., 1998, All India Institute of Speech and Hearing;
 Ph.D., 2005, East Carolina 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. (1999) Professor** Psychology
B.S., 1973, Virginia Polytechnic Institute and State University;
M.S., 1981, Radford University;
Ph.D., 1989, University of Southern Mississippi.
- Ellwanger, Steven (2005) Assistant Professor** Criminal Justice and
Criminology
B.A., 1993 and M.P.A., 1999, University of Nevada, Reno;
Ph.D., 2005, Washington State University.
- Epps, Susan B. (2001) Assistant Clinical Professor** Physical Therapy
B.A., 1988, Wake Forest University;
M.A., 1995, Appalachian State University;
Ed.D., 2002, East Tennessee State University.
- 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.
- Essin, Emmett M. (1967) Professor** History
A.B., 1964, Austin College;
M.A., 1965 and Ph.D., 1968, Texas Christian University.
ETSU Distinguished Faculty Member, 1976.
- Evanshen, Pamela A. (2001) Associate Professor** Human
Development and Learning
B.S., 1982, Tusculum College;
M.S., 1984 and Ed.D., 2001, East Tennessee State University.
- Everett, Michael David (1977) Professor** Economics and Finance
B.A., 1960 and Ph.D., 1967, Washington University.
- Fagelson, Marc A. (1996) Associate Professor** Interim Chair,
Communicative Disorders
B.A., 1986, Columbia University, School of General Studies;
M.S., 1990, Columbia University, Teachers College;
Ph.D., 1995, University of Texas, Austin.
- Farrow, Jeff R. (1993) Medical Director** Cardiopulmonary Science
B.S., 1981, Baylor University;
M.D., 1985, University of New Mexico, Albuquerque.
- Faust, Charles C. (1986) Associate Professor** Chair, Allied
Health Sciences
B.S., 1976, University of Southwestern Louisiana;
B.S., 1980, Northeast Louisiana University;
M.Ed., 1985, University of Southwestern Louisiana;
Ed.D., 1997, University of Tennessee.
- Felker, Lon S. (1988) Professor** Political Science
A.B., 1968, University of South Carolina;
M.A., 1969 and Ph.D., 1975, Michigan State 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.
- Fitzgerald, Martin R. (2003) Assistant Professor** Technology and
Geomatics
B.M., 1984, Indiana University-Bloomington;
M.M., 1986, State University of New York-Stony Brook.
- Florence, James E. (1995) Associate Professor** Community Health
Interim Chair
B.S., 1974, California Baptist College;
M.A., 1978, Dr.P.H., 1981, and M.P.H., 1982, Loma Linda University.
- Floyd, Michael R. (1989) Associate Professor** Family Medicine
Adjunct Faculty, Psychiatry
B.S., 1970, University of Georgia;
M.Ed., 1972 and Ed.D., 1982, Auburn University.
- Foley, Virginia P. (2007) Assistant Professor** Educational Leadership
and Policy Analysis
B.S., 1976 and M.A., 1978, Tennessee Technological University;
Ed.S., 1988, State University of West Georgia;
Ed.D., 1996, University of Alabama.
- Forsman, Allan D. (1998) Associate Professor** Health Sciences
B.S., 1984, University of North Dakota;
M.S., 1988 and Ph.D., 1991, University of North Dakota School of Medicine.
- Fox, James J., III (1990) Professor** Human Development
and Learning
Associate 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.
ETSU Distinguished Faculty Award, 2004.
- Franklin, Jay (2004) Assistant Professor** Sociology and
Anthropology
B.A., 1992, M.A., 1999, and Ph.D., 2002, University of Tennessee, Knoxville.
- Franklin, Kathryn K. (2005) Associate Professor** Educational
Leadership and Policy Analysis
B.S., 1977, University of Alabama;
M.B.A., 1991, Middle Tennessee State University;
Ed.D., 1996, East Tennessee 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.
- 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) Professor** Communication
B.S., 1976, Western Carolina University;
M.F.A., 1984, University of North Carolina-Greensboro.
- Gallagher, Michael T. (1989) Professor** Health Sciences
B.S., 1966, University of Houston;
M.S., 1970, Northwestern University;
Ph.D., 1974, Baylor College of Medicine.
- 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.
- Gao, Yongli (2004) Assistant Professor** Geosciences
B.S., 1991 and M.S., 1994, Beijing University;
M.S., 2002 and Ph.D., 2002, University of Minnesota.
- Garcia, Loni T. (2006) Associate Dean** Student Affairs,
College of Pharmacy
B.S., 1978 and M.S., 1984, University of North Carolina, Chapel Hill.
- 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.
- Garrett, Linda H. (2002) Assistant Professor** Family/
Community Nursing
B.S., 1986, M.S.N., 1999, and Ph.D., 2006, East Tennessee State University.
- Gerard, Mira (2001) Assistant Professor** Art and Design
B.F.A., 1991, Indiana University;
M.F.A., 2001 University of Georgia.
- Ghaffari, Masoud (2002) Associate 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.
- Gillespie, Wayne, Jr. (2001) Associate Professor** Criminal Justice
and Criminology
Assistant Dean, School of Graduate Studies
B.A., 1993, College of William and Mary;
M.A., 1998, East Tennessee State University;
Ph.D., 2001, University of Kentucky.

- Glascocock, Catherine H. (2008) Professor Chair, Educational Leadership and Policy Analysis**
 B.S., 1978, Ohio Dominican College;
 M.B.A., 1987, Louisiana Tech University;
 Ph.D., 1996, Louisiana State University.
- Glenn, Loyd Lee (1992) Professor Professional Roles/ Mental Health Nursing**
 B.A., 1974, University of California;
 Ph.D., 1979, Stanford University.
- Gloeckler, Phyllis (2007) Assistant Professor Human Development and Learning**
 B.A., 1972, Catholic University of America;
 M.A., 1993, Appalachian State University;
 Ph.D., 2006, University of North Carolina at Greensboro.
- Glover, Eric S. (2004) Associate Professor Educational Leadership and Policy Analysis**
 B.S., 1972, M.A., 1985, and Ed.D., 2003, University of New Mexico.
- Godbole, Anant (2000) Professor 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.
- Govett, Aimee L. (2003) Associate Professor Curriculum and Instruction**
 B.A., 1988, M.A., 1996, and Ph.D., 2001, West Virginia University.
- Granberry, Nancy C. (2005) Assistant Professor Professional Roles/ Mental Health Nursing**
 B.S., 1981, University of South Alabama;
 M.S., 1986, Florida International University;
 M.S.N., 1991, Troy State University;
 N.D., 2004, Rush University.
- Graves, Travis H. (2005) Assistant Professor Art and Design**
 B.F.A., 1996, Iowa State University;
 M.F.A., University of Wisconsin-Madison.
- Green, J. Keith (2002) Assistant Professor Philosophy and Humanities**
 A.B., 1980, Saint Olaf College;
 M.Div., 1984, Yale University;
 Ph.D., 1992, Brown University.
- Grissett, Barbara B. (2003) Associate Professor Social Work**
 B.S., 1968, Southern Missionary College;
 M.S.W., 1981 and Ph.D., 1992, University of Texas-Arlington.
- Grover, Kathleen M. (1976) Assistant Professor English**
 B.A., 1964, Florida State University;
 M.A., 1967, Memphis State University.
- Gunter, Charles R., Jr., (1964) Associate Professor Geosciences**
 B.S., 1962, Middle Tennessee State University;
 M.A., 1963, University of Tennessee.
- Guntupalli, Vijaya Kumar (2006) Assistant Professor .. Communicative Disorders**
 B.S., 1999 and M.S., 2001, All India Institute of Speech and Hearing, University of Mysore;
 Ph.D., 2007, East Carolina University.
- Hale, Kimberly (2008) Assistant Professor Human Development and Learning**
 B.S., 1987, Virginia Polytechnic Institute and State University;
 M.S., 1991, Radford University;
 Ph.D., 2005, Virginia Polytechnic Institute and State University.
- Haley, Darryl E. (1999) Associate Professor English**
 B.A., 1992, University of Arkansas;
 M.A., 1994, University of Arkansas-Little Rock;
 Ph.D., 1999, University of Alabama.
- 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**
 BPh., 1969, University of North Dakota, Grand Forks;
 M.S.W., 1976, Barry University, Miami Shores, Florida;
 Ph.D., 1999, University of Tennessee.
- Hamdy, Ronald C. (1985) Professor Center for Geriatrics and Gerontology**
 M.B., 1968, and D.M., 1971, University of Alexandria, Egypt.
- Hamm, Dennis G., Jr. (1998) Instructor Criminal Justice and Criminology Advisor, College of Arts and Sciences**
 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.
- Hamm, Jean S. (2004) Assistant Professor Curriculum and Instruction**
 B.S., 1970 and M.S., 1976, Radford University;
 Ed.D., 2003, Virginia Polytechnic Institute and State University.
- Hammond, Judith (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.
- Han, Keunsu (2008) Assistant Professor Kinesiology, Leisure and Sport Sciences**
 B.A., 2001 - Dongguk University;
 M.A., 2004 - Indiana State University;
 Ph.D., 2007 - Florida State University.
- Han, Zhihua (2003) Assistant Professor Biochemistry and Molecular Biology**
 B.S., 1987 and M.S., 1989, Peking University, China;
 Ph.D., 1997, University of California, San Diego.
- 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.
- Hanley, Gregory Alan (2005) Assistant Professor Pharmacology Director, DLAR**
 B.S., 1987, State University of New York, Geneseo;
 D.V.M., 1993 and Ph.D., 1998, University of Florida.
- Hariforoosh, Saicdreza (2007) Assistant Professor Pharmaceutical Sciences**
 Pharm.D., 1991, Tehran University;
 Ph.D., 2005, University of Alberta.
- 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.
- Hayes, Patricia A. (1999) Associate Professor Adult Nursing**
 B.S.N., 1981, Grand View College;
 M.S., 1985, University of Minnesota;
 Ph.D., 1997, Georgia State University.
- Hayman, J. Russell (2002) Assistant Professor Microbiology**
 B.S., 1987, Mississippi College;
 Ph.D., 1995, University of Mississippi Medical Center.
- 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.
- Heil, Katrina (2007) Assistant Professor** Foreign Languages
B.A., 1998, Trinity University;
M.A., 2000, University of North Carolina at Chapel Hill;
Ph.D., 2006, University of Texas at Austin.
- Helfgott, Michel (2004) Associate Professor** Mathematics
B.S., 1972, Universidad de San Marcos;
M.S., 1994, Northern Arizona State University;
Ed.D., 1997, Montana State University.
- Hemphill, William K. (1992) Associate Professor** Technology and Geomatics
Adjunct Faculty, Obstetrics and Gynecology
B.S.M.E., 1981, University of Tennessee, Knoxville;
M.S., 1992, East Tennessee State University.
- Henry, Robin (2007) Director** Experiential Education
M.B.A., 2007, East Tennessee State University;
Pharm.D., 2001, Mercer University Southern School of Pharmacy.
- Henson, Gary D. (1989) Assistant Professor** Physics and Astronomy
B.S., 1979, University of Central Arizona;
M.S., 1982, University of New Mexico;
Ph.D., 1989, University of Oregon.
ETSU Distinguished Faculty Award, 2004.
- Herrin, Mindy (2004) Assistant Professor** Art and Design
B.F.A., 1998, Texas Tech University;
M.F.A., 2002, Indiana University.
- Herrin, Roberta T. (1976) Professor** Chair, Appalachian Studies
Director, Center for Appalachian Studies and Services
B.S., 1970 and M.A., 1972, East Tennessee State University;
Ph.D., 1986, University of Tennessee.
- Hess, Jr., Richard A. (2007) Assistant Professor** Pharmacy Practice
B.S., 1992, University of South Florida;
Pharm.D., 1998, Mercer University Southern School of Pharmacy.
- 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** Community Health
B.S., 1981, Valparaiso University;
Ph.D., 1989, State University of New York-Albany.
- Hipple, F. Steb (1982) Professor** Economics and Finance
B.A., 1962 and M.A., 1964, Trinity University;
Ph.D., 1972, Southern Methodist University.
- Ho, Chu-Ngi (1983) Associate Professor** Chemistry
B.S., 1975, Denison University;
Ph.D., 1980, University of Washington.
- Holland, Mark (1986) Professor** English
B.A., 1972, Heidelberg College;
M.A., 1977 and Ph.D., 1984, Miami University.
- Holmes, Thomas Alan (1996) Associate Professor** English
Associate Dean, College of Arts and Sciences
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.
- Hoover, Donald B. (1978) Professor** Pharmacology
B.S., 1972, Grove City College;
Ph.D., 1976, West Virginia University.
ETSU Distinguished Faculty Award, 2002.
- Hopson, Victor W. (1977) Associate Professor** Dental Hygiene
D.D.S., 1973, University of Tennessee Medical Units.
- 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.
- Hossler, Susan M. (2001) Assistant Professor** Family/Community Nursing
B.S.N., 1994, East Tennessee State University;
M.S.N., 1995, University of Tennessee, Knoxville.
- Hriso, Peter (2002) Assistant Professor** Technology and Geomatics
B.S., 1992, University of Southern Indiana;
M.F.A., 1994, Ohio State University.
- Huang, Thomas T. (1971) Professor** Chemistry
Faculty Emeritus
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.
- Hurd, Mary G. (1966) Associate Professor** English
Director, Film Studies Minor
Faculty Emerita
B.S., 1962 and M.A., 1965, East Tennessee State University.
- Hurley, David L. (2007) Associate Professor** Vice Chair, Pharmaceutical Sciences
B.S., 1979, Guilford College;
M.S., 1982 and Ph.D., 1986, Pennsylvania State University.
- Hurwitz, Rhona S. (1991) Professor** Chair, Curriculum and Instruction
B.A., 1972, Connecticut College;
M.Ed., 1973, University of North Dakota;
Ed.D., 1988, University of Houston.
- Hutson, Sadie P. (2005) Assistant Professor** Internal Medicine
B.S.N., 1998, University of Wisconsin, Madison;
M.S.N., 2000 and Ph.D., 2004, University of Pennsylvania.
- Hyder, Carroll R. (1967) Associate Professor** Associate Dean
College of Business and Technology
B.S., 1967 and M.S., 1967, East Tennessee State University;
Ph.D., 1971, Ohio State University.
- Ignace, Richard (2003) Associate Professor** Physics and Astronomy
B.S., 1991, Indiana University;
M.S., 1993, M.S., 1994, and Ph.D., 1996, University of Wisconsin.
- Isbell, Rebecca T. (1975) Senior Affiliate Faculty** Human Development and Learning
Director, Center for Early Childhood Learning and Development
Faculty Emerita
B.S., 1964, University of Tennessee;
M.A., 1973, East Tennessee State University;
Ed.D., 1979, University of Tennessee.
ETSU Distinguished Faculty Award, 1994.
- Jackson, Frances A. (2000) Associate Professor** Professional Roles/
Mental Health Nursing
B.A., 1972, Vanderbilt University;
B.S.N., 1990, East Tennessee State University;
M.S.N., 2000, University of Virginia.
- Jenrette, Thomas S. (1979) Professor** Music
A.B., 1968 and M.M., 1970, University of North Carolina;
D.M.A., 1976, University of Michigan.
- Jiang, Yu-Lin (2006) Assistant Professor** Chemistry
B.S., 1986 and M.S., 1989, Jilin University;
M.S., 1997 and Ph.D., 2000, University of Adelaide.

- 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.
- Johnson, Donald Ray (1983) Professor** **English**
Poet in Residence
 B.A., 1964 and M.A., 1966, University of Hawaii;
 Ph.D., 1972, University of Wisconsin-Madison.
 ETSU Foundation Research Award, 1991.
- Johnson, Jesse W.** **Human Development and Learning**
 B.A., 1982 and M.A., 1987, East Carolina University;
 Ed.D., 1998, Northern Illinois University.
- Johnson, Keith V. (1993) Professor** **Chair, Technology and Geomatics**
 B.S., 1987 and M.S., 1988, North Carolina A&T State University;
 Ph.D., 1993, Ohio State University.
- Jones, Jodi Polaha (2006) Assistant Professor** **Psychology**
 M.S., 1996 and Ph.D., 1998, Auburn University.
- Jones, Thomas Charles (2006) Assistant Professor** **Biological Sciences**
 B.S., 1990 and M.S., 1993, Cleveland State University;
 Ph.D., 2000, Ohio State University.
- Joplin, Karl H. (1994) Associate Professor** **Biological Sciences**
 B.S., 1973, University of Washington;
 M.S., 1982 and Ph.D., 1989, Ohio State University.
- Joyner, William L. (1989) Professor** **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.
- Kady, Ismail (1990) Associate Professor** **Chemistry**
 B.S., 1977 and M.S., 1979, University of Jordan;
 Ph.D., 1986, Michigan State University.
- 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.
- Kamolnick, Paul (1991) Associate Professor** **Sociology and Anthropology**
 B.S., 1983, M.S., 1987, and Ph.D., 1990, Florida State University.
- 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.
- Kaplan, Amy I. (1994) Assistant Professor** **Professional Roles/ Mental Health Nursing**
 B.A., 1964 and M.A., 1966, New York University;
 B.S.N., 1991, Wilmington College;
 M.S.N., 1994, East Tennessee State University.
- Karsai, Istvan (2001) Associate Professor** **Biological Sciences**
 M.S., 1987 and Ph.D., 1997, Jozsef Attila University.
- Kasmai, Hamid S. (1987) Professor** **Chemistry**
Faculty Emeritus
 B.S., 1961, Teacher's College, Tehran, Iran;
 Ph.D., 1969, University of Wisconsin.
- Keene, Kevin S. (2004) Assistant Professor** **Allied Health Sciences**
Director of Clinical Education
Cardiopulmonary Science
 B.S., 2001 and M.S., 2002, Mountain State University;
 M.B.A., 2004, King College.
- Kelly, Edward J. (1997) Associate Professor** **Educational Leadership and Policy Analysis**
 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.
- Khoury, Amal J. (2007) Associate Professor** **Interim Chair, Health Services Administration**
 B.S., 1991 and M.P.H., 1993, American University of Beirut;
 Ph.D., 1998, Johns Hopkins University Bloomberg School of Public Health.
- King, C. Lindsey (2004) Lecturer** **Sociology and Anthropology**
 B.S. 1977, East Tennessee State University;
 M.A., 1990, Georgia State University;
 Ph.D., 1999, University of Tennessee.
- King, John (1999) Associate Professor** **Communication**
 B.A., 1984, M.S., 1991, and Ph.D., 1995, University of Tennessee.
- King, Karen D. (1990) Professor** **Associate Vice President for Academic Technology**
 A.S., 1979 and B.S., 1981, East Tennessee State University;
 M.H.Ed., 1983, Medical College of Georgia.
- Kinsler, 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.
- Kirkby, Scott (2003) Assistant Professor** **Chemistry**
 B.Sc., 1989, University of Western Ontario
 Ph.D., 1996, University of Toronto.
- Kirkwood, William (1978) Professor** **Communication**
Associate Vice President for Academic Affairs and Executive Director, Office of Planning and Analysis
 B.S., 1973, M.A., 1974, and Ph.D., 1978, Northwestern University.
- Knight, W. Hal (1986) Professor** **Educational Leadership and Policy Analysis**
Dean, Clemmer College of Education
 B.A., 1972, Augusta College;
 M.P.A., 1977, West Virginia College of Graduate Studies;
 Ph.D., 1983, Kansas State 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.
- 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.
- Koterbay, Scott M. (1998) Associate Professor** **Art and Design**
 M.A., 1992 and Ph.D., 1998, University of St. Andrews, Scotland.
- Kornwiebel, Karen (2007) Assistant Professor** **English**
 B.A., 1994, University of California, San Diego;
 M.A., 1997, and Ph.D., 2000, University of Texas, Austin.
- Kridler, Jamie B. (1997) Associate Professor** ... **Human Development and Learning**
 B.S., 1976 and M.S., 1977, University of Tennessee;
 Ph.D., 1985, The Ohio State University.
- Kruppa, Michael (2008) Assistant Professor** **Microbiology**
 B.S., 1992, Saint Mary's University;
 Ph.D., 2000, University of Texas-Health Sciences Center at San Antonio.

- Kuczynski, Kay (2000) Assistant Professor Social Work**
B.S., 1965, Edgewood College;
M.S.W., 1968, Rutgers University;
D.S.W., 1978, Catholic University.
- Kumar, Dharendra (2005) Assistant Professor Biological Sciences**
B.Sc., 1984, M.Sc., 1987, and Ph.D., 1998, Lucknow University, India.
- Kumaraguru, Uday (2005) Assistant Professor Microbiology**
M.Sc., 1986 and Ph.D., 1993, University of Madras, India.
- Lampley, James H. (2005) Assistant Professor Educational
Leadership and Policy Analysis**
B.S., 1973, Middle Tennessee State University;
M.S., 1974, University of Tennessee;
Ed.D., 1999, East Tennessee State University.
- Lampson, Bert C. (1998) Associate Professor Health Sciences**
B.S., 1977, Delaware Valley College;
M.S., 1981 and Ph.D., 1986, University of Missouri-Columbia,
School of Medicine.
- Langenbrunner, Mary (1993) Associate Professor Human
Development and Learning**
B.S., 1974 and M.S., 1976, University of Kentucky;
Ph.D., 1986, University of Tennessee.
- 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.
- Lauzon, Catherine M. (2007) Instructor Adult Nursing**
B.S.N., 1996 and M.S.N., 1998, Florida International University.
- Lee, Tom (2006) Assistant Professor History**
B.A., 1990, East Tennessee State University;
M.A., 1993, Wake Forest University;
Ph.D., 2001, 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.
- Leigh-Paffenroth, Elizabeth (2005) Assistant Professor Communicative
Disorders**
B.S., 1990, Texas Tech University;
M.S., 1993, East Carolina University;
Ph.D., 2003, University of Wisconsin, Madison.
- LeRoy-Frazier, Jill A. (2006) Assistant Professor Cross-Disciplinary
Studies**
B.A., 1987, University of Louisville;
M.A., 1990, and Ph.D., 1998, University of Michigan-Ann Arbor.
- Levy, Foster (1989) Professor Biological Sciences
Director of Undergraduate Research and Creative Activities,
Honors College**
B.A., 1976 and M.A., 1978, City College of New York;
Ph.D., 1989, Duke University.
- Lewis, Angela Radford (2004) Associate Professor Chair, Family and
Consumer Sciences**
B.S., 1984, M.S., 1987, M.V.T.E., Middle Tennessee State University;
Ph.D., 2003, University of Tennessee.
- Li, Chuanfu (1996) Associate Professor Surgery
Adjunct Faculty, Pharmacology**
M.S., 1986 and M.D., 1978, Nanjing Medical University of China.
- Liang, Beichen (2007) Assistant Professor Management and
Marketing**
B.S., 1993, Zhengzhou Institute of Light Industry, China;
M.B.A., 2002, University of Louisiana at Lafayette;
Ph.D., 2007, University of Illinois at Chicago.
- Lichtenwalner, Shawna (2005) Assistant Professor English**
B.A., 1994, Nebraska Wesleyan University;
M.A., 1996, University of Nebraska;
Ph.D., 2004, Auburn University.
- Littleton, Mary Ann (2002) Associate Professor Community Health**
B.A., 1985, University of California-Santa Cruz;
Ph.D., 2001, University of Alabama-Birmingham.
- Liu, Yali (2005) Assistant Professor Mathematics**
B.S., 1996, Northwestern Polytechnical University, Xi'an, China;
M.S., 1999, Peking University, China;
M.S., 2002 and Ph.D., 2005, Purdue University.
- Liu, Yusheng (2006) Assistant Professor Biological Sciences**
B.Sc., 1986, Sichuan University;
M.Sc., 1989 and Ph.D., 1992, Nanjing Institute of Geology.
- Lloyd, Theresa A (1996) Associate Professor English**
B.A., 1974, Duke University;
M.A., 1982, Pennsylvania State University;
Ph.D., 1996, University of North Carolina, Chapel Hill.
- Loberntini, Jo Alison (1990) Assistant Professor Cross-Disciplinary
Studies**
B.A., 1986, University of Tennessee, Knoxville;
M.A., 1988 and Ed.D., 2000, East Tennessee State University.
- 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.
- 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.
- Lowe, Elizabeth (1999) Assistant Professor Family and
Consumer Sciences**
B.S., 1974 and M.S., 1982, University of Tennessee.
- Lowry, Lois W. (1999) Professor Professional Roles/
Mental Health Nursing
Faculty Emerita**
B.S.N., 1955, Cornell University;
M.N., 1977, University of Florida;
D.N.Sc., 1987, University of Pennsylvania.
- Lugo, Ralph A. (2006) Professor Chair, Pharmacy Practice**
B.S., 1988, Rutgers University;
Pharm.D., 1991, University of North Carolina at Chapel Hill.
- Luttermoser, Donald G. (1996) Associate Professor Chair, Physics
and Astronomy**
B.S., 1981, University of Michigan;
M.A., 1983, Wayne State University;
M.A., 1985 and Ph.D., 1988, Indiana University.
- Lynch, Andy (2004) Assistant Professor Communication**
B.S., 1995, Maryville University—St. Louis;
M.S., 1997, Southeast Missouri State University;
Ph.D., 2004, Southern Illinois University—Carbondale.
- Maas-Brady, Jane T. (2003) Director of Field Instruction ... Social Work**
B.S., 1978, Greensboro College;
M.S.W., 1985, University of North Carolina at Chapel Hill.
- MacAvoy, Leslie (2000) Associate Professor Philosophy and
Humanities**
B.A., 1988, Swarthmore College;
Ph.D., 1998, McGill University.
- Mackara, W. Frederick (1975) Associate Professor Economics
and Finance
Assistant Director, Graduate Business Studies**
A.B., 1969, Rutgers University;
Ph.D., 1976, Texas A&M University.

- MacKay, Louise L. (1993) Associate Professor Educational Leadership and Policy Analysis Faculty Emerita**
 B.A., 1957, Transylvania University, Kentucky;
 M.A., 1970, George Peabody College for Teachers;
 Ph.D., 1983, Vanderbilt University.
- MacRae, Norma (1987) Professor Human Development and Learning Vice Provost for Academic Support and Public Service and Dean of Continuing Studies**
 A.B., 1969, University of Georgia;
 M.Ed., 1975 and Ed.D., 1980, University of Kentucky.
- Maier, Kurt J. (2000) Associate Professor Environmental Health**
 B.A., 1978, University of California-Berkeley;
 M.S., 1982, California State-Hayward;
 Ph.D., 1990, University of California-Davis.
- Malkus, Amy J. (2000) Associate 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.
- Marchioni, Michael P. (1976) Associate Professor Geosciences**
 B.A., 1963, Montclair State College;
 M.A., 1968, Louisiana State University;
 Ph.D., 1971, University of Cincinnati.
- Marks, Lori (1993) 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.
- Marrs, Jo-Ann S. (2002) Professor Professional Roles/ Mental Health Nursing**
 B.S., 1972, M.S., 1977, M.S.N., 1987, and Ed.D., 1985, University of Tennessee.
- Marshall, Stephen W. (2006) Assistant Professor Communication**
 B.S., 1995, M.A., 2004, and Ph.D., 2006, University of Florida.
- Martin, Brian C. (2006) Assistant Professor Health Services Administration**
 B.S., 1988, M.B.A., 1993, and Ph.D., 1996, University of South Carolina.
- Martin, Kathy L. (2007) Associate Professor Chair, Adult Nursing**
 B.S.N., 1976, University of Central Arkansas;
 M.S.N., 1977, University of Alabama, Birmingham;
 Ph.D., 1995, Vanderbilt University.
- Maxson, Brian Jeffrey (2008) Assistant Professor History**
 B.A., 2002, Michigan State University;
 M.A., 2003 and Ph.D., 2008, Northwestern University.
- McCallister, Leslie A. (2003) Assistant Professor Sociology and Anthropology Graduate Coordinator**
 B.A., 1997, M.A., 1998, and Ph.D., 2001, Baylor University.
- McConnell, Peggy R. (1974) Associate 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.
- 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.
- McGarry, Theresa (2004) Assistant Professor English**
 B.A., 1980, Michigan State University;
 M.A., 1994, Temple University of Japan, Osaka;
 Ph.D., 2004, University of South Carolina-Columbia.
- McGowen, Kathleen Ramsey (1985) Professor Psychiatry and Behavioral Sciences**
 B.S., 1975, M.S., 1977, and Ph.D., 1981, Auburn University.
 ETSU Distinguished Faculty Award, 2003.
- McIntosh, Cecilia A. (1993) Professor Biological Sciences Dean, School of Graduate Studies**
 Adjunct Faculty, Biochemistry and Molecular Biology
 B.A., 1977, M.A., 1981, and Ph.D., 1990, University of South Florida.
- 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 College of Business and Technology**
 B.S., 1980 and M.B.A., 1987, East Tennessee State University;
 J.D., 1991, Columbia University.
- McLain, Raymond W. (2000) Associate Professor Appalachian Studies Director, Bluegrass, Old Time, and Country Music**
 B.A., 1973, Berea College.
- Melendez, E. Jane (1986) Professor Curriculum and Instruction Faculty Emerita**
 B.S., 1961, Eastern Michigan University;
 M.S., 1981 and Ph.D., 1991, Indiana University.
- Merriman, Carolyn S. (1985) Associate Professor Family/ Community Nursing**
 B.S.N., 1979, University of Evansville;
 M.S., 1983, Texas Women's University.
- Metts, Tricia (2005) Assistant Professor Environmental Health**
 B.S., 1989 and M.S., 1991, University of Wisconsin-Eau Claire;
 Ph.D., 2004, University of Michigan.
- Michieka, Martha (2006) Assistant Professor English**
 B.Ed., 1998, Kenyatta University, Kenya;
 M.A., 2002, and Ph.D., 2006, Purdue University.
- Mijeski, Kenneth J. (1971) Professor Political Science**
 B.A., 1966, Florida State University;
 Ph.D., 1971, University of North Carolina – Chapel Hill.
- 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, 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 Chair, Criminal Justice and Criminology**
 B.A., 1974, East Tennessee State University;
 M.S., 1977, Eastern Kentucky University;
 Ph.D., 1981, University of Tennessee.
 ETSU Distinguished Faculty Award, 2004.

- 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.
- 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.
- Mink, Patricia (2003) Assistant Professor** **Art and Design**
B.A., 1981, Kalamazoo College;
M.F.A., 1996, Eastern Michigan 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.
- Monaco, Paul J. (1987) Professor** **Anatomy and Cell Biology**
B.A., 1974, Merrimack College;
M.S., 1977 and Ph.D., 1982, Marquette 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.
- Moore, Teah (2006) Assistant Professor** **Human Development and Learning**
B.A., 1984, Anderson University;
M.A., 2003, Bradley University;
Ph.D., 2006, Idaho State University.
- Moore, Thomas (2007) Assistant Professor** . **Management and Marketing**
B.B.A., 1997 and M.B.A., 2002, University of North Texas at Denton;
Ph.D., 2007, University of Texas at Arlington.
- Moonman, Jonathan P. (2000) Associate Professor** **Internal Medicine**
B.S., 1987, Loyola College;
M.D., 1991, University of Virginia School of Medicine.
- Morefield, John D. (1983) Associate Professor** **English**
A.B., 1962, Davidson College;
M.A., 1963, University of Florida.
- Morgan, Robert G. (1975) Professor** **Accountancy**
B.A., 1968, Piedmont College;
M.Acc., 1971 and Ph.D., 1974, University of Georgia.
- 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) Associate Professor** **Kinesiology, Leisure and Sport Sciences**
B.S., 1980, M.Ed., 1980, and Ph.D., 1998, Georgia State University.
- Murnane, Owen D., Jr. (1995) Assistant Professor** **Communicative Disorders**
B.S., 1978 and M.Ed., 1980, Madison College;
Ph.D., 1995, Syracuse University.
- Murray, Catherine (1995) Associate Professor** **Art and Design**
B.A., 1982, Portland State University;
M.F.A., 1987, University of Montana.
- Musich, Phillip R. (1980) Professor** **Biochemistry and Molecular Biology**
Adjunct Faculty, Biological Science
B.S., 1968, Creighton University;
Ph.D., 1973, University of Chicago.
- Mustain, Eric L. (1990) Associate Professor** **Health Sciences**
B.A., 1974, University of Missouri-Columbia;
Ph.D., 1984, University of Colorado Health Sciences Center.
- Mwinyelle, Jerome (2004) Assistant Professor** **Foreign Languages**
B.A., 1989, University of Ghana;
M.A., 1995, Temple University;
Ph.D., 2005, University of Texas at Austin.
- Nelson, Ardis L. (1994) Professor** **Foreign Languages**
B.A., 1965, Oberlin College;
M.A., 1972, Middlebury College-Madrid;
Ph.D., 1980, Indiana University-Bloomington.
- Newcomer, Daniel (2000) Assistant Professor** **History**
B.A., 1993 and M.A., 1995, New Mexico State;
Ph.D., 2000, Texas Christian University.
- Newell, Christine L. (2006) Instructor** **Psychiatry and Behavioral Sciences**
B.A., 1982, East Tennessee State University;
Ph.D., 1994, University of Texas System, Graduate School of Biomedical Sciences, Houston, Texas;
M.Ed., 1999, East Tennessee State University.
- Niederberger, Maria (1999) Associate Professor** **Music**
B.A., 1981, University of California, Davis;
Ph.D., 1991, Brandeis University.
- Noe, Colleen M. (2005) Associate Professor** **Communicative Disorders**
B.S., 1989 and M.S., 1991, East Tennessee State University;
Ph.D., 1994, Ohio State University.
- Norwood, Frederick H. (1987) Professor** **Mathematics**
B.A., 1966, University of Southwestern Louisiana;
M.S., 1969, University of California-Riverside;
Ph.D., 1979, University of Southwestern Louisiana.
- O'Donnell, Kevin E. (1993) Associate Professor** **English**
Director, Environmental Studies Minor
B.A., 1984, Kent State University;
M.A., 1987 and Ph.D., 1993, University of Wisconsin-Milwaukee.
- Odle, Brian L. (2007) Assistant Professor** **Pharmacy Practice**
B.S., 1990, Middle Tennessee State University;
Pharm.D., 1994, University of Tennessee at Memphis.
- Oh, Sunjoo (2005) Assistant Professor** **Music**
B.M., 1992 and M.M., 1994, Sungshin Women's University, Seoul, Korea;
D.M.A., 2005, University of South Carolina, Columbia.
- Oliveira, Carrie M. (2007) Assistant Professor** **Communication**
B.A., 1999, and M.A., 2002, University of Hawaii;
Ph.D., 2007, Michigan State University.
- Olson, Charles S. (1999) Associate Professor** **Appalachian Studies**
B.A., 1982, University of Minnesota;
M.A., 1991, University of Kentucky;
Ph.D., 1997, University of Mississippi.
- Onyango, Edward M. (2006) Assistant Professor** **Health Sciences**
BVM, 1987 and M.S., 1992, University of Nairobi;
Ph.D., 2004, Purdue University.
- Ordway, Gregory A. (2005) Professor** **Chair, Pharmacology**
B.S., 1980, Ohio State University;
Ph.D., 1985, Ohio State University, College of Pharmacy.
- Osborn, Richard E. (1990)** **Cross-Disciplinary Studies**
B.A., 1976, M.A., 1978, and Ed.S., Western Illinois University;
Ph.D., 1990, University of Iowa.
- Owens, Beatrice H. (2006) Assistant Professor** **Physical Therapy**
B.S.P.T., 1989, University of Tennessee - Memphis;
Ph.D., 2004, East Tennessee State University.

- Pack, Rob (2008) Associate Professor Community Health
Associate Dean, College of Public Health**
B.S., 1991, University of Alabama-Birmingham;
M.P.H., 1994 and Ph.D., 1998, University of Alabama at Birmingham School of Public Health.
- Padmanabhan, Rengasamy (2007) Associate Professor ... Health Sciences**
B.S., 1970 and M.S., 1973, Madras University;
Ph.D., 1980, Banaras Hindu University.
- Page, Melvin E. (1987) Professor History**
B.A., 1966, American University;
M.A., 1968, Howard University;
Ph.D., 1977, Michigan State University.
- Palmer-Lopez, Sandra (1995) Associate Professor Foreign Languages**
B.A., 1977, Colegio Universitario de Cayey, Puerto Rico;
M.A., 1981, University of South Florida;
Ph.D., 1994, Florida State University.
- 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.I.Sc., 1971;
Ph.D., 1975, Indian Institute of Science, Bangalore, India.
- Panus, Peter C. (1995) Associate Professor Pharmaceutical Sciences**
B.A., 1979, Huntingdon College;
B.S., 1981, Ph.D., 1985, and B.S.P.T., 1994, University of South Alabama.
- Parker, Herbert M. (2005) Assistant Professor Communication**
B.F.A., 1977, Stephens College;
M.F.A., 1980, Ohio 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.
- Payne, Linda L. (2006) Assistant Professor Human Development
and Learning**
B.S., 1984, East Texas State University;
M.S., 2002, Texas A&M University;
Ph.D., 2005, University of Florida.
- Pearson, Tamera L. (2004) Assistant Professor Adult Nursing**
B.S.N., 1985, Southern College;
M.S.N., 1990, Vanderbilt University;
Ph.D., 1997, University of South Carolina.
- 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.
- Pfeiffer, Phillip E., IV (1996) Professor Computer and Information
Sciences**
B.S., 1976, Yale University;
M.S., 1986 and Ph.D., 1991, University of Wisconsin-Madison.
- Pike, Lee M. (1976) Professor Biological Sciences
Faculty Emeritus**
B.A., 1967, Albion College;
M.S., 1971 and Ph.D., 1974, Michigan State University.
- Pittarese, Anthony (2007) Assistant Professor Computer and
Information Sciences**
B.S., 1991, Pensacola Christian College;
M.B.A., 1992 and M.S., 1997, University of West Florida;
Ph.D., 2003, Auburn University.
- Pointer, Martha M. (1991) Associate Professor Accountancy
Associate Dean and Director, Graduate Studies,
College of Business and Technology**
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.
- Pomerantz, Edward (2005) Adjunct Faculty Social Work**
B.A., 1971, Florida Atlantic University;
M.S.W., 1976, Barry University.
- Pond, Brooks B. (2007) Assistant Professor Pharmaceutical Sciences**
B.S., 2000, Centre College;
Ph.D., 2004, Duke University Medical Center.
- 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, C. Laraine (1995) Associate Professor Health Sciences**
B.S., 1983, Memphis State University;
M.S., 1987, University of Tennessee, Knoxville;
Ph.D., 1994, University of Tennessee, Memphis.
- 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.
- Price, Tabitha N. (2006) Assistant Professor Dental Hygiene**
B.S.D.H., 2004 and M.P.H., 2006, East Tennessee State University.
- Proctor-Williams, Kerry (2002) Assistant Professor Communicative
Disorders**
B.Sc., 1980 and M.Cl.Sc., 1984, University of Western Ontario;
Ph.D., 2005, University of Kansas.
- Pyles, Rebecca A. (1991) Associate Professor Biological Sciences
Dean, Honors College**
B.S., 1975, University of Missouri-Kansas City;
M.S., 1979, M.Ph., 1982, and Ph.D., 1988, University of Kansas.
- Quigley, John V. (1984) Associate Professor Management and Marketing
Director of Honors in Discipline**
B.B.A., 1967, M.B.A., 1970, and Ph.D., 1979, Georgia State University.
- Ralston, Elizabeth (1993) Professor Curriculum and Instruction
Associate Dean, Clemmer College of Education
Director, Field Services**
B.A., 1970, Texas A&I University;
M.Ed., 1973 and Ed.D., 1978, Memphis State University.
- Ramsauer, Victoria Palau (2007) Assistant Professor Pharmaceutical
Sciences**
B.A., 1979, Pontificia Universidad Javeriana;
Ph.D., 1999, Florida International University.
- Ramsey, Michael (2005) Assistant Professor Kinesiology, Leisure
and Sport Sciences**
B.S., 1993 and M.A., 1995, Sam Houston State University;
Ph.D., 2005, Texas A&M University.
- Ramsey, Priscilla W. (1990) Professor Adult Nursing
Faculty Emerita**
B.S., 1976 and M.S., 1979, Clemson University;
Ph.D., 1990, University of Virginia.
ETSU Distinguished Faculty Award. 2003.
- Rayman, Kathleen M. (1999) Associate Professor Professional Roles/
Mental Health Nursing**
B.S.N., 1978, University of Pittsburgh;
M.S.N., 1987 and Ph.D., 1994, University of Virginia.
- Razskazovskii, Yuriy V. (2002) Associate Professor Physics and
Astronomy**
B.S., 1980 and Ph.D., 1984, Moscow 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
L.L.B. Hons., 1993, University of Sierra Leone, Fourah Bay College;
L.L.M., 1998, University of Georgia School of Law;
Ed.D., 2002, Bowling Green State University.
- Rhea, Kelly B. Price (2006) Assistant Professor** Management and Marketing
B.S., 1995 and M.A., 2001, East Tennessee State University;
Ph.D., 2004, University of Tennessee, Knoxville.
- Rhoton, Jack (1987) Professor** Curriculum and Instruction
Executive Director, Center of Excellence in Mathematics and Science Education
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.
- Rice, Jody (2004) Clinical Instructor** Communicative Disorders
B.S., 1999, West Virginia University;
M.S., 2001, East Tennessee State University.
- Rice, Judith A. (1997) Assistant Professor** Family/Community Nursing
B.S., 1988, B.S.N., 1994, and M.S.N., 1996, East Tennessee State University.
- Rice, Peter J. (1986) Professor** Pharmacology
B.S., 1976, Northeastern University;
Ph.D., 1983, Ohio State University College of Pharmacy.
- Roane, David S. (2006) Professor** Chair, Pharmaceutical Sciences
B.A., 1979, Drake University;
B.S., 1984, Louisiana Tech University;
Ph.D., 1987, Louisiana State University Medical Center.
- Roberts, Anna D. (1982) Professor** Family and Consumer Sciences
1974, East Tennessee State University;
Ph.D., 1990, University of North Carolina, Greensboro.
- 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.
ETSU Distinguished Faculty Award, 2005.
- Robertson, Patricia E. (1997) 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.
- Robinson, Mitchell E. (1985) Professor** Biochemistry and Molecular Biology
Associate 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.
- Roh, Chul-Young (2003) Assistant Professor** Health Services Administration
B.A., 1987 and M.A., 1989, InHa University;
M.P.A., 1992, New York University;
Ph.D., 2002, University of Colorado-Denver.
- 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.
- Ryman, Joel A. (2003) Associate Professor** Management and Marketing
B.A., 1983, Goshen College;
M.S., 1988, Thunderbird;
Ph.D., 1999, University of Tennessee.
- Samples, Donald A. (1990) Associate Professor** Associate Dean, College of Clinical and Rehabilitative Health Sciences
B.B.A., 1980, East Tennessee State University;
M.S., 1993, University of Tennessee, Knoxville;
Ed.D., 1998, East Tennessee State University.
- Sanderson, Donald B. (1993) 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.
- Sarubbi Jr., Felix A. (1987) Professor** Pharmacology
Chief, Division of Infectious Diseases
Assistant Dean/Director of Medical Education-VAMC
B.S., 1965, Manhattan College;
M.D., 1969, New York University School of Medicine.
- Sawyer, Robert E. (2001) Associate Professor** English
B.A., 1979, Stetson University;
M.A., 1987, Western Carolina University;
Ph.D., 1997, University of Georgia
- Scarborough, Janna L. (2006) Associate Professor** Human Development and Learning
B.S., 1991, University of Mary;
M.A.Ed., 1994, Western Carolina University;
Ph.D., 2002, University of Virginia.
- 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.
- Scherer, Nancy J. (1992) Professor** Communicative Disorders
Dean, College of Clinical and Rehabilitative Health Sciences
B.S., 1971 and M.S., 1972, University of Wisconsin, Madison;
Ph.D., 1980, University of Washington.
- Scheuerman, Phillip R. (1986) Professor** Chair, Environmental Health
B.S., 1975, M.S., 1978, and Ph.D., 1984, University of Florida.
- Schmitt, Dale J. (1969) Professor** Chair, History
B.A., 1965, Yale University;
M.A., 1968 and Ph.D., 1970, University of Kansas.
- 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.
- Schoborg, Robert V. (1994) Associate Professor** Microbiology
B.S., 1985, Oklahoma State University;
Ph.D., 1991, University of Missouri, Columbia.
- Schrift, Melissa (2006) Assistant Professor** Sociology and Anthropology
B.A., 1991, Appalachian State University;
M.A., 1992 and Ph.D., 1998, University of Hawaii.
- Schubert, Blaine W. (2006) Assistant Professor** Geosciences
Adjunct Faculty, Biological Sciences
B.A., 1994, Central Missouri State University;
M.S., 1997, Northern Arizona University;
Ph.D., 2004, University of Arkansas.
- Schweitzer, John B. (1999) Professor** Pathology
B.A., 1974, Washington University;
M.S., 1978, Washington University School of Medicine.
- Scott, Pamela Howell (2006) Assistant Professor** Educational Leadership and Policy Analysis
B.S., 1973, M.A., 1977, Ed.S., 1989, and Ed.D., 1997, Appalachian State University.

- 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) Associate Professor Communication**
 B.A., 1983, Southern Illinois University - Edwardsville;
 M.F.A., 1985, Southern Illinois University - Carbondale.
- Sharuga, Constance R. (2005) Associate Professor Dental Hygiene**
 A.A.S., 1973, Westbrook College;
 B.A., 1976, St. Francis College;
 M.Ed., 1987 and Ph.D., 1990, Colorado State University.
- Shemwell, Donald J. (1993) Professor Management and Marketing**
 B.S., 1979 and Ph.D., 1993, Florida State University.
- Sherrill, Anne (1982) Professor English
 Faculty Emerita**
 B.A., 1960 and M.A., 1969, University of Texas-Austin;
 Ph.D., 1981, University of Iowa.
- Silver, Kenneth Z. (2003) Assistant Professor Environmental Health**
 B.S., 1982, University of Massachusetts-Amherst;
 M.S., 1990, Harvard University;
 D.Sc., 2003, Boston University.
- Simon, Leonore (1999) 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.
- Sims, Joseph P. (2000) Professor Technology and Geomatics**
 B.S., 1985 and 1991, Middle Tennessee State University;
 M.S., 1989, University of Tennessee;
 Ph.D., 1996, University of Wales, UK.
- 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, India;
 Ph.D., 1993, McGill University, Montreal, Canada.
- Skalko, Richard G. (1977) Professor Chair, Anatomy and Cell Biology
 Assistant Dean, College of Medicine Graduate Studies**
 A.B., 1957, Providence College;
 M.S., 1959, St. John's University;
 Ph.D., 1963, University of Florida.
- Slagle, Judith B. (1999) Professor Chair, English**
 B.S., 1983 and M.A., 1985, East Tennessee State University;
 Ph.D., 1991, University of Tennessee.
- Slap, Andrew L. (2003) Associate Professor History**
 B.A., 1994, University of Massachusetts at Amherst;
 Ph.D., 2002, Pennsylvania State University.
- Slatton, Ralph (1990) Professor Art and Design**
 B.F.A., 1981 and M.A., 1986, Arkansas State University;
 M.F.A., 1990, University of Iowa.
- Slawson, Deborah (2007) Assistant Professor Family and
 Consumer Sciences**
 B.S., 1988 and M.S., 1990, Memphis State University;
 Ph.D., 1999, University of Memphis.
- Smith, Beverly J. (1999) Associate Professor Physics and Astronomy**
 A.B., 1983, Brown University;
 Ph.D., 1989, University of Massachusetts.
 ETSU Distinguished Faculty Award, 2005.
- Smith, Jon L. (1980) Associate Professor Economics and Finance
 Director, Bureau of Business and Economic Research**
 B.S., 1968, Mississippi State University;
 M.A., 1975 and Ph.D., 1982, University of South Carolina.
- 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.
- Smith, Sherri Lyn (2005) Assistant Professor .. Communicative Disorders**
 B.S., M.S., Au.D., and Ph.D., University of Florida
- Smith, Suzanne (2003) Associate Professor Computer and
 Information Sciences**
 B.S., 1975, Baylor University;
 M.A.T., 1979, Vanderbilt University;
 M.S., 1984, University of Southwestern Louisiana;
 Ph.D., 1991, Florida State University.
- Smurzynski, Jacek (2003) Associate Professor Communicative
 Disorders**
 B.A., 1974, Music School of Warsaw, Poland;
 M.Sc., 1976, Technical School of Warsaw, Warsaw, Poland;
 Ph.D., 1987, Technical School of Wroclaw, Wroclaw, Poland.
- 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) Professor Curriculum and Instruction**
 B.A., 1976, Sarah Lawrence College;
 M.A., 1987, University of North Carolina;
 Ph.D., 1994, Northwestern University.
- 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.
- Stanley, Isabel Bonnyman (1983) Professor English
 Faculty Emerita**
 B.A., 1977 and M.A., 1982, East Tennessee State University;
 Ph.D., 1990, University of Tennessee.
- 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.
- 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 Edward (1989) Associate Professor Accountancy**
 B.S., 1979, University of Tennessee;
 M.Acc., 1982, East Tennessee State University;
 Ph.D., 1990, University of Tennessee, Knoxville.
 C.P.A., Tennessee.
- Steele, Linda (2004) Assistant Professor Curriculum and Instruction**
 B.S., 1983, University of North Alabama;
 M.L.S., 1985, Vanderbilt University.
- Stenstad, Gail (1989) Professor Philosophy and Humanities**
 B.S., 1984, University of Wisconsin;
 M.A., 1987 and Ph.D., 1988, Vanderbilt University.
- Stephens, Daryl (1994) Assistant Professor Mathematics**
 B.S., 1983 and M.Ed., 1987, University of North Texas;
 M.S., 1993, Texas Women's University;
 Ph.D., 2005, University of Tennessee – Knoxville.

- Stewart, David W. (2007) Assistant Professor Pharmacy Practice**
Pharm.D., 2003, Campbell University School of Pharmacy.
- Stewart, James Ross (2006) Biological Sciences**
B.A., 1967, Denison University;
M.S., 1970, University of Missouri;
Ph.D., 1976, University of California.
- Stewart-Glenn, Jennifer D. (2004) Assistant Professor Family/
Community Nursing**
B.S.N., 1997, Radford University;
M.S.N., 2000, George Mason University.
- Stone, John E. (1972) Professor Human Development and Learning**
B.Ed., 1966 and M.A.Ed., 1968, University of Kentucky;
Ed.D., 1972, University of Florida.
- Stone, Michael H. (2005) Associate Professor Kinesiology, Leisure
and Sport Sciences**
B.S., 1970, Florida Technological University;
M.S., 1974, Tennessee Technological University;
Ph.D., 1977, Florida State University.
- 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.
- Stoots, James M. (1998) Assistant Professor Community Health**
B.S., 1987 and M.P.H., 1990, East Tennessee State University;
Ed.D., 2001, University of Tennessee.
- Story, Charles Howard (1965) Professor ... Technology and Geomatics
Faculty Emeritus**
B.S., 1961, Murray State College;
M.S.Ed., 1965, Southern Illinois University;
Ed.D., 1970, Texas A&M University.
- Sun, Peng (2008) Assistant Professor Chemistry**
B.S., 1996, Guilin Institute of Technology, Guilin, China;
Ph.D., 2003, Changchun Institute of Applied Chemistry, Changchun, China.
- 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) Associate Professor Management and
Marketing**
B.S., 1987, M.S., 1993, and Ph.D., 1999,
Virginia Polytechnic Institute and State University.
- Tedesco, Marie (1985) Cross-Disciplinary Studies**
B.A., 1970, Marietta College;
M.A., 1973 and Ph.D., 1978, Georgia State University.
- Thomas, Rachel M. (2008) Assistant Professor Adult Nursing**
B.S.N., 1999, Jacksonville University;
M.S.N., 2001 and Ph.D., 2006, University of Florida.
- 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.
- Thompson, Phyllis A. (2005) Assistant Professor English**
B.S., 1983, University of North Carolina at Greensboro;
M.A., 1992, Appalachian State University;
Ph.D., 2003, Louisiana State University.
- Tillman, Primnus J. (1999) Assistant Professor Technology and
Geomatics**
B.A., 1984, University of Memphis;
M.A., 1990, Memphis College of Arts.
- Tollefson, Terry (1993) Professor Educational Leadership
and Policy Analysis
Faculty Emeritus**
A.B., 1961, University of Michigan;
M.B.A., 1963, Michigan State University;
Ph.D., 1975, University of Michigan.
- Trogen, Paul C. (1995) Associate Professor Political Science**
B.A., 1976, University of St. Thomas;
M.A., 1991, Mankato State University;
Ph.D., 1995, Florida State University.
- Trumbley, Sharon G. (1993) Assistant Professor Family/
Community Nursing**
B.S.N., 1971, Columbia University;
M.S.N., 1977, Boston College.
- Tudiver, Fraser G. (2001) Professor Family Medicine
Director, Primary Care Research**
B.S., 1968, McGill University;
B.Med.Sc., 1971 and M.D., 1973, Memorial University of Newfoundland.
- 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, Craig (2002) Associate Professor Management and Marketing**
B.S., 1981 and M.B.A., 1990, University of Central Florida;
Ph.D., 1969, Oklahoma State University.
- Ume-Nwagbo, Pearl N. (1997) Assistant Professor Family/
Community Nursing**
B.S.N., 1981, A&T State University;
M.S.N., 1994 and Ph.D., 2008, East Tennessee State University.
- Vaglia, John S. (1976) Professor Technology and Geomatics**
B.S., 1964, California University of Pennsylvania;
M.A., 1970, East Tennessee State University;
Ph.D., 1978, University of Maryland.
- Vanhook, Patricia M. (2007) Assistant Professor Professional Roles/
Mental Health Nursing**
B.S.N., 1991, M.S.N., 1994, and Ph.D., 2007, East Tennessee State University.
- Verhovsek, Ester L. (2006) Associate Professor Radiography**
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B.S.N., 1976 and M.S., 1980, University of Wisconsin;
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ETSU Distinguished Faculty Award, 2000.
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B.S.W. Program Director
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B.S., 1979, North Dakota State University;
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B.S.N., 1972, East Tennessee State University;
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 B.S., 1963, Mount Union College;
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 Studies
 B.A., 1976, Western Illinois University;
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 B.S., 1961, Bowling Green University;
 Ph.D., 1969, Oklahoma State University.
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 B.A., 1990 and M.A., 1992, University of Delaware;
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 B.S., 1991, Brigham Young University;
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 B.S., 1965 and M.B.A., 1967, Northeast Louisiana State College;
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 ETSU Distinguished Faculty Member, 1976.
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 B.A., 1969, St. John Vianney Seminary;
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 B.S., 1982 and B.S. Hons., 1983, Monash University, Australia;
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 B.A., 1966, Dillard University;
 M.S., 1968, Tennessee State University;
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 B.S., 1978 and M.S., 1980, West Virginia University;
 Ph.D., 1988, Indiana University.
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 A.B., 1969, Albertus Magnus College;
 Ph.D., 1977, St. Louis University.
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 B.S., 1974, Kentucky Wesleyan College;
 Ph.D., 1985, Tulane University.
 ETSU Distinguished Faculty Award, 1997.
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 B.S. and Certificate in Physical Therapy, 1970, Kansas University;
 M.A., 1972, University of Iowa.
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 B.S., Youngstown State University;
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 Development and Learning
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 B.A., 1977 and M.A., 1979, University of Arkansas;
 Ph.D., 1993, University of Southern Mississippi.
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 B.A., 1969, University of Iowa;
 M.S., 1974 and Ph.D., 1977, University of Kansas.
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 B.S., East Tennessee State University;
 M.S., Vanderbilt University;
 Ph.D., Northwestern University.
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 B.S., 1972, Calvin College;
 Ph.D., 1977, The Medical College of Wisconsin.
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 Vice Provost for Research and Sponsored Programs
 B.A., 1969, University of Michigan;
 M.S., 1971 and Ph.D., 1973, University of Florida.
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 B.A., 1990, State University of New York, Buffalo;
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 M.D., 1983 and M.S., 1986, Shandong University;
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 Dean, Public Health
 B.S., 1977, M.P.H., 1981, and M.D., 1981, Tulane University.
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 B.S., 1963, M.S., 1967, and Ph.D., 1971, University of North Carolina.
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 M.S., 1986, Moscow State University;
 Ph.D., 1992, N.I. Vavilov Institute.
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 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;
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 ETSU Foundation Research Award, 1993.
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 M.D., 1987, Taishan Medical University, China;
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 B.A., 1973, Lake Forest College;
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 B.S., 1974 and M.S., 1976, Arizona State University;
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 B.S., 2000, University of Science and Technology of China, Hefei, China;
 M.S., 2003 and Ph.D., 2005, Wichita State University.
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 B.S., 1964, Trinity College;
 M.A., 1968 and Ph.D., 1970, Texas Christian University.
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 B.S., 1982, Chengdu University of Science and Technology, China;
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 B.S., 1973, University of Bridgeport;
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