# Tennessee Technological University - 2023-2024 Graduate Catalog



Tennessee Tech University

# **Catalog Home**

June 2023

The Graduate Catalog is only available online and covers the entire academic year. The next publication will take place in June 2024 for 2024-2025

# **Change of Catalog Content**

The course offerings and requirements of the institution are continually under examination and revision. This catalog is not intended to state contractual terms and does not constitute a contract between the student and the institution.

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

If you have questions or comments, please contact Graduate Studies at gradstudies@tntech.edu.

# Notice

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

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

Current information may be obtained from the following sources:

- Admission Requirements College of Graduate Studies
- Course Offerings Department or Division Offering Course
- Degree Requirements Departmental Chairperson of Major
- Fees and Tuition Business Office

The University provides the opportunity for students to increase their knowledge by providing programs of instruction in the various disciplines and programs through faculty who, in the opinion of the University, are qualified for teaching at the college level. The acquisition and retention of knowledge by any student is, however, contingent upon the student's desire and ability to learn and his or her application of appropriate study techniques to any course or program. Thus, the University must necessarily limit representation of student preparedness in any field of study to that competency demonstrated at that specific point in time at which appropriate academic measurements were taken to certify course or program completion. Any or all students may be required to take one (1) or more tests designed to measure general education achievement and/or achievement in selected major areas as a prerequisite to graduation for the purpose of valuation of academic programs. Unless otherwise provided for any individual program, no minimum score or level of achievement is required for graduation. Participation in testing and other evaluation measures are required for all students and for students in selected programs. In order to comply fully with this provision, the student must authorize the release of his or her scores to the institution. Individual student scores will be treated as confidential.

Tennessee Technological University is an Equal Opportunity/Affirmative Action institution and is in compliance with Titles VI and VII of the Civil Rights Act of 1974, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1974, the Rehabilitation Act of 1973, the Vietnam Era Veterans Readjustment Act of 1974, and the Americans With Disabilities Act of 1990. The University is nondiscriminatory on the basis of age, race, color, religion, sex, national origin, disability status, or status as a disabled veteran or veteran of the Vietnam era. Inquiries or complaints concerning these policies should be directed to the Affirmative Action Officer, Derryberry Hall, Room 314D, (931) 372-3016.

Faculty members will endeavor to make necessary accommodations for disabled persons in their courses. The Office of Disability Services is available to assist the faculty to make necessary special arrangements for disabled students. This Office should be contacted as early as possible by a student regarding assistance that may be needed for attendance at the University.

# Message from the President

Dear Student,

Congratulations and welcome to Tennessee Technological University. As a graduate student, we offer you a place to focus on relevant work, to fearlessly pursue answers to problems that have global implications, and to diligently dedicate yourself to creating knowledge.

Universities ultimately exist to create and transfer knowledge and to identify and develop human talent. During your personal experience here, you can expect that we will offer you the tools and environment you need to succeed.

We strive to incorporate the latest technology throughout all disciplines. As our university focuses on the national priorities of science, technology, engineering and mathematics, we strengthen all our programs by infusing technological innovation across campus.

TTU is also staying responsive to the needs of industry and to society. You will work with researchers, scholars and mentors here who maintain relationships with key industrial, government and community leaders.

You have joined the company of an esteemed group – those who have chosen TTU to prepare them for success in their careers and in their life experiences. Our alumni hold positions as Fortune 500 CEOs, NASA astronauts, government leaders, renowned professors, respected researchers and other prestigious leaders.

You will make a positive impact here. Congratulations for choosing to become an important part of Tennessee Tech University.

Sincerely,

Philip B. Oldham

President

# **Information Directory**

### All inquiries and correspondence concerning the following areas should be addressed to:

Graduate Studies	Financial Aid
College of Graduate Studies	Office of Financial Aid
Tennessee Technological University	Tennessee Technological University
Box 5012	Box 5076
Cookeville, TN 38505-0001	Cookeville, TN 38505-0001
Ph: (931) 372-3233	Ph: (931) 372-3073 or 1-800-268-0236
Fx: (931) 372-3497	Fx: (931) 372-6309
Gradstudies@tntech.edu	financialaid@tntech.edu

Records and Registration	Records and Registration
Office of Records and Registration	Office of Records and Registration
Tennessee Technological University	
Box 5026	Box 5026
Cookeville, TN 38505-0001	Cookeville, TN 38505-0001
Phone: (931)372-3317 or 1-800-268-0242	Ph: (931) 372-3317 or 1-800-268-0242
email: records@tntech.edu	Fx: (931) 372-6111
	records@tntech.edu

#### **Academic Offices**

College of Graduate Studies, Office of the Dean	(931) 372-3233
College of Agriculture & Human Ecology	(931) 372-3149
College of Arts & Sciences	(931) 372-3118
College of Business	(931) 372-3372
College of Education	(931) 372-3124
College of Engineering	(931) 372-3172

College of Interdisciplinary Studies	(931) 372-3394
Whitson-Hester School of Nursing	(931) 372-3203
International Education	(931) 372-3634
Provost and Vice-President for Academic Affairs	(931) 372-3224

Directory assistance for other offices is available through the main switchboard at (931) 372-3101. The University's web site address is **www.tntech.edu**.

Tennessee Technological University was founded in 1915 and is governed by our Board of Trustees. www.tntech.edu/board

TTU /An EEO/AA/Title IX/Section 504/ADA Employer

# Academic Policy Relative to Closing Due to Inclement Weather

GENERAL STATEMENT: Tennessee Technological University offices will remain open during periods of inclement weather even though classes may be canceled.

In accordance with TBR policy, faculty, administrators, and staff of TTU are expected to make every reasonable effort to be at their work assignment on time, taking into consideration the personal risk involved. Administrators or staff employees who anticipate arriving late, or not arriving at work at all, should notify their immediate supervisor of this fact as soon as possible and request annual leave for the period of absence. If faculty members must be absent from assigned classes due to inclement weather, it is their responsibility to notify the appropriate chairperson and/or dean.

The decision to cancel off-campus classes will be made by the Provost in close consultation with the Dean of the College of Graduate Studies and the coordinator of the affected off-campus center. The information will then be disseminated as quickly as possible by whatever means are available in the vicinity of the affected center.

At times it may be necessary for the President to declare specific hours as emergency closing as the result of inclement weather or other emergency situations. In such cases, regular full-time and part-time employees on the active payroll who are scheduled to work during the declared times of closing will be granted time off from work with pay. Employees who are not scheduled to work will not be paid for the emergency closing. Clerical and support personnel required to work to keep essential services functioning will receive extra compensation. Administrative personnel required to work will receive equal time off for hours worked.

If classes are not canceled despite inclement weather, students are responsible for any academic work they miss as a result of inclement weather. It is the individual student's responsibility to take the initiative in making up any missed work, and it is the faculty member's responsibility to provide students a reasonable opportunity to make up missed work.

# **Accreditation and Memberships**

### Tennessee Technological University—A State University

Tennessee Tech University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate, master's, specialist, and doctoral degrees. Tennessee Tech University also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of Tennessee Tech University may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

### Accreditation

- AACSB--International The Association to Advance Collegiate Schools of Business
- AAFCS American Association of Family and Consumer Sciences
- ABET Accreditation Board for Engineering and Technology
- ACS The American Chemical Society
- ACEND Accreditation Council for Education in Nutrition and Dietetics
- CACREP Council for the Accreditation of Counseling and Related Educational Programs
- CAEP Council for the Accreditation of Educator Preparation
- CCNE Commission on Collegiate Nursing Education
- NASAD National Association of Schools of Art and Design
- NASM National Association of Schools of Music

#### **Memberships**

- American Association of Colleges of Teacher Education
- American Association of State Colleges and Universities
- Council of Graduate Schools
- Ohio Valley Conference
- Oak Ridge Associated Universities
- Putnam County Chamber of Commerce
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- Teacher Education Council of State Colleges and Universities
- Tennessee College Association

# **University Calendar**

Please see the University Calendar web site at https://www.tntech.edu/calendar/ for registration, fee payment, drop/add, and other important dates. For detailed listing of dates specific to graduate students go to https://www.tntech.edu/graduatestudies/gcalendar.php.

### Summer Semester 2023

April 3 - May 19	Registration for Summer 2023
May 22	Classes begin for First and Full Term
May 29	Memorial Day Holiday
May 24	Last Day to Add a 1st Term Summer Course
May 28	Last Day to Add Full Term Course
June 13	Last Day to Drop 1st Term Course
June 23	Final Examinations for First Term
June 24	Last Day to Withdraw (1st Term)
June 26	Classes begin for Second Term
June 28	Last Day to Add 2nd Term Course
July 4	Independence Day Holiday
July 7	Last Day to Drop Full Term Course
July 18	Last Day to Drop 2nd Term Course
July 26	Last Day to Withdraw (Full & 2nd Terms)
July 27-28	Final Examinations for Second and Full Term

### Fall Semester 2023

April 4 - August 17	Registration for Fall 2023
August 17	Classes begin
August 30	Last Day to Add or Drop Classes in Eagle Online
September 4	Labor Day Holiday-No classes
October 9-10	Fall Break-No classes

October 27	Last Day to Drop a Course with a "W"
November 22-24	Thanksgiving Holidays-No classes
December 1	Last day of classes Last Day to Withdraw from the University
December 4-8	Final Examinations
December 8	Commencement

# Spring Semester 2024

November 13 - January 10	Registration for Spring 2024
January 11	Classes begin
January 15	Martin Luther King Holiday-No Classes
January 25	Last Day to Add or Drop Classes in Eagle Online
March 11-15	Spring Break
March 22	Last Day to Drop a Course with a "W"
April 26	Last day of classes Last Day to Withdraw from the University
April 29-May 2	Final Examinations
May 3	Commencement

This calendar is subject to change at any time prior to or during an academic term due to emergencies or causes beyond the reasonable control of the institution, including severe weather, loss of utility services, or orders by federal or state agencies.

# **Statement of Mission**

Tennessee Technological University's mission as the state's only technological university is to provide leadership and outstanding programs in engineering, the sciences, and related areas that benefit the people of Tennessee and the nation. The University also provides strong programs in the arts and sciences, business, education, agriculture and human ecology, nursing, music, art, and interdisciplinary studies. Tennessee Tech serves students from throughout the state, nation, and many other countries, but it retains a special commitment to enrich the lives of people and communities in the Upper Cumberland region of Tennessee.

The University is committed to the lifelong success of students in its undergraduate, master's, specialist, and doctoral degree granting programs through high quality instruction and learning experiences. The University is engaged in scholarly activity, especially basic and applied research, creative endeavors, and public service, with special emphasis on community and economic development. The University supports student participation in a broad array of extracurricular activities as an integral component of its commitment to student life and success.

The University's three interdisciplinary Accomplished Centers of Excellence in Energy Systems Research, Manufacturing, and Water Resources and Chairs of Excellence in Business Administration strengthen the instructional, research, and service mission of the University.

The University is as supportive of women as of men and as supportive of those in the minority as of those in the majority. The University provides educational opportunities to all eligible persons without regard to age, gender, ethnicity, race, religion, national origin, disability, or sexual orientation.

Tennessee Technological University is a member of the State University and Community College System of Tennessee and is governed by the Tennessee Board of Regents. Approved by the Tennessee Board of Regents on December 3, 2004.

# **Vision Statement**

Tennessee Tech will be nationally recognized as a leading technological university in the South, providing academic, economic and cultural leadership in the region and producing practical, ready-to-work graduates from a broad range of academic disciplines prepared to compete in a technologically driven world.

### **Mission of the Graduate School**

The mission of the Graduate School is to promote, coordinate, enhance the quality of, and serve as an advocate for graduate education programs at Tennessee Technological University.

### Vision of the Graduate School

The vision of the Graduate School is to improve human knowledge through teaching, learning, research and outreach.

# The University Campus

Cookeville, Tennessee, the site of Tennessee Technological University, is located within a day's drive of about 75% of the nation's population via Interstate 40, Highway 70 North, and Highway 111. Cookeville is just 70 miles East of Nashville and 110 miles West of Knoxville, with Chattanooga 100 miles to the South. Major airline services are available through Nashville, Knoxville, and Chattanooga.

The City of Cookeville has a population of more than 26,000 residents and is located on the eastern Highland Rim of Tennessee at an elevation of 1,140 feet. Cookeville is the 'hub' of the 14-county Upper Cumberland region of about 317,000 citizens. The local public schools, civic clubs, and churches have a friendly and cooperative relationship with students, faculty, and patrons. The surrounding area, enhanced by three major lakes, abounds in natural beauty and is served by several state park including Burgess Falls and Cummins Falls state parks. Cookeville is just minutes from top-rated golf courses, lakes, rivers, hiking, championship fishing, hunting, and an amazing variety of sports (including Tennessee Tech University's) and other activities.

The campus consists of a tract of 235 acres made attractive by building architecture, shrubbery, native trees, and a system of driveways and walkways; making travel to and from buildings to parking lots easy and convenient. A current map of the university may be found on the TTU website.

# **Research Opportunities**

Research is an integral part of the University and is broadly defined to include studies, investigations, and other scholarly and creative pursuits. Faculty involvement may be on an individual basis or as members of interdisciplinary teams. Many faculty include students in their research activities and are encouraged to do so.

The University's membership in research oriented organizations compliments and enhances both faculty and student research opportunities. Among the organizations is Oak Ridge Associated Universities (ORAU).

Since 1981, students and faculty of Tennessee Technological University have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 96 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one (1) month to four (4) years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the *ORISE Catalog of Education and Training Programs*, which is available at www.orau.gov/orise/educ.htm or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.

For more information about ORAU and its programs, contact the Office of Research at (931) 372-3374 or the web site at www.tntech.edu/research. You may also contact the ORAU Corporate Secretary, at (865) 576- 3306 or visit the ORAU Home Page at www.orau.org.

There are identified units within the university that have a research component, and in some instances these units provide opportunities for student research focused in a particular area. One example is the Upper Cumberland Humanities and Social Sciences Institute. This interdisciplinary institute is designed to promote humanities and social sciences in the University and in the institution's service area through the Upper Cumberland Studies Program, funded research projects, and public service activities. Of particular interest are activities that deal with the Upper Cumberland region, promote interaction between various disciplines, and encourage cooperation between the community and the University.

Research is conducted in each division of the University, including the Centers of Excellence, and there are numerous opportunities for student involvement either directly on contracts and grants or on research assistantships. The University maintains an Office of Research which assists in the procurement of funds to support research.

# **Centers of Excellence**

By authority of the General Assembly of the State of Tennessee, the Tennessee Higher Education Commission, and the Tennessee Board of Regents, three Centers of Excellence have been established at Tennessee Technological University. These accomplished Centers of Excellence focus on advanced interdisciplinary scholarship, including basic and applied research. Each center strives to utilize more efficiently the resources of the University in order to improve the general economic development of the State of Tennessee; improve the state's research base; and enhance the intellectual, cultural, and social activities of its citizens.

Among its priorities, each center attempts to attract internationally recognized faculty, as well as both undergraduate and graduate students who have strong scholarly backgrounds and a commitment to academic excellence.

Graduate students who become affiliated with a Center of Excellence must first qualify for admission into one of the University's graduate programs. Thereafter, in cooperation with the chairperson of the student's major department and the director of the center, the student may gain an assignment in research or similar scholarly activity; in most cases, the student will be appointed to a graduate assistantship or be given some remuneration for successful participation.

### **Center for Energy Systems Research**

The Center for Energy Systems Research was established to advance and apply scientific and engineering knowledge associated with the generation, transmission, distribution, and use of electric power while supporting the instructional program of the University in academic areas related to electric power. In pursuing its goals, the Center works with electric utilities, state and federal agencies, private industries, nonprofit organizations, and other universities on a wide spectrum of projects. Research efforts, both theoretical and experimental, are focused on solving problems currently faced by the electric power industry. Specific research projects involve:

- 1. developing integrated software packages for the simulation and analysis of electric power systems to improve performance and reduce costs,
- 2. implementing innovative techniques to improve the utilization of fossil fuels in power plants, and
- 3. participating in basic research on emerging technologies to ensure that future electric power needs are met in an environmentally acceptable manner.

The Center, which is administered through the College of Engineering, provides opportunities for interdisciplinary research by involving faculty, staff, and students throughout the University. The Center has a positive impact on many facets of the electric power industry in the State of Tennessee and the nation.

#### Center for the Management, Utilization, and Protection of Water Resources

The Center for the Management, Utilization, and Protection of Water Resources focuses interdisciplinary scientific research on water resources issues in Tennessee, the surrounding region, and the nation. Its team approach to environmental research strengthens the University's educational program by combining faculty, professional staff, and students from agriculture, biology, chemistry, the Cooperative Fisheries Research Unit, earth sciences, engineering, and the social sciences into problem-solving groups. Center-supported graduate students pursuing degrees in one of these academic areas become important members of professional research teams. The Center is administered through the Office of Research & Economic Development. It maintains a staff with expertise in geographic information systems (GIS), modeling, and database management, and a professionally staffed laboratory, capable of general wet chemistry/physic parameter analyses, organic analyses, metal analyses, and biological/mutagenicity/toxicity testing. Basic

techniques on solid-liquid phase interactions, chemistry, and the biological sciences provide support for fundamental and applied research. Current faculty research emphasizes:

- 1. biodiversity;
- 2. surface and ground water protection, use, and availability;
- 3. domestic, industrial, and recreational water use;
- 4. conservation and reuse of finite water supplies;
- 5. public education and the examination of socioeconomic problems of water treatment and distribution;
- 6. wastewater treatment and disposal; and
- 7. water pollution and the protection of aquatic organisms and other wildlife from point and nonpoint sources.

### **Center for Manufacturing Research**

The Center of Excellence for Manufacturing Research was created to draw together resources of the State of Tennessee, the University, industries from Tennessee and abroad, and government funding agencies into a cooperative effort to be on the leading edge of the latest technological advances in manufacturing. The Center has a twofold mission:

- 1. to advance and support scientific and engineering knowledge in areas related to manufacturing, and
- 2. to enhance the University's instructional program in manufacturing-related areas.

The Center draws upon expertise from throughout the College of Engineering and various other colleges, departments, and the University, as appropriate, as well as resources outside the University. In addition, the Center employs dedicated faculty and staff that are responsible for enhancing and supporting our strategic research program. The Center for Manufacturing Research has concentrated on four (4) strategic research areas:

- 1. Intelligent Control of Processes and Equipment,
- 2. Integrated Product and Process Realization,
- 3. Next Generation Materials and Manufacturing Processes, and
- 4. Pervasive Modeling and Simulation.

The Center for Manufacturing Research also has a significant extension component with a focus on quality services provided to industry. Service activities can include externally funded research projects, small laboratory testing projects, an industry work-study program that matches industry needs for engineering assistance with engineering student capabilities, and small business support through a TSBDC that is partially supported by the Center.

# **Student Support Services**

### **Alumni Association**

The purpose of the Alumni Association is to promote the educational, social, and economic interests of Tennessee Technological University, its alumni, faculty, friends, and current students. All former students of Tennessee Technological University who earned a degree are recognized as alumni.

The Director of Alumni Relations coordinates the activities of the Alumni Association. The work of the Association is administered through the Office of Alumni Relations in consultation with the Association's Advisory Board. The advisory board consists of alumni representatives appointed by the Director of Alumni Relations and the current Advisory Board; it also includes a delegate from the Student Alumni Ambassadors.

### **Career Services**

The Office of Career Services, located on the third floor of the University Center, provides a variety of career resources for graduate students. Advice and suggestions to maximize interviewing strategies and resume preparation are also provided. As the University's centralized recruiting facility, candidates for a graduate degree should register with the office two (2) semesters prior to their anticipated graduation date for assistance with their job search. Registration is required for students and alumni in advance of their participation in campus interview activities.

Recognizing the benefits to be gained through the use of cutting-edge technology, Career Services maintains a full service web site at http://www.tntech.edu/career/. Students, alumni, and employers can access information about campus recruiting activities including the ability to post and obtain resumes online. Electronic links have been set up as a quick resource tool to use when searching the Internet for career resources and opportunities. Interactive videoconferencing software enables students and alumni to interview with employers worldwide.

# **Computer Facilities**

The D. W. Mattson Computer Center is equipped with a large-scale, modern digital computer, together with peripheral equipment for the rapid input, output, and storage of information. Although the Center satisfies the general administrative, instructional, and research needs of the University, there are numerous student computer labs located throughout the campus for instructional and research purposes. Many graduate students utilize computer facilities in their research pursuits. Lab locations and hours are posted on the ITS website.

# **Counseling Center**

The Tennessee Tech Counseling Center, located in the Roaden University Center, provides a wide range of services. Counseling offers an opportunity for students to develop more effective means of resolving problems and acquiring strategies for achieving personal and professional goals. The Center also administers a number of standardized tests including the GRE (subject only) and MAT for students interested in or planning to attend graduate school. Outreach and consultation services on a variety of topics of interest to students are available.

Students experience varying degrees of difficulty related to the challenges of graduate school. Transition issues, stress management, interpersonal relationships, family issues, depression, and anxiety are among the concerns that students discuss in counseling. Strict confidentiality is maintained in the counseling process.

There is no fee for this service. Registered, enrolled students are eligible and may make appointments by calling the Counseling Center (931) 372-3331.

### **Financial Aid**

Graduate assistantships constitute the primary source of financial aid for students enrolled in the Graduate School. Information concerning appointment of graduate assistants is found in the section entitled Organization of the College of Graduate Studies.

Students who have been admitted as regular students in a degree-seeking program may wish to complete the Free Application for Federal Student Financial Aid (FAFSA). Recipients of federal direct loans or workstudy must be U.S. citizens or eligible noncitizens enrolled for at least five (5) semester hours (for federal aid purposes, halftime status is defined as enrollment for five (5) hours, three-quarter time status is defined as enrollment of six to eight (6-8) hours, and full-time is defined as enrollment of nine [9] hours). The interest on these loans is a variable amount (set by the federal government each year); interest and principal repayment may be deferred while the student is enrolled. The FAFSA is available online at www.fafsa.ed.gov.

You may also wish to review our website at www.tntech.edu/financialaid/ for further information about aid programs and procedures. In addition, you can use this site to link to the online version of the Free Application for Federal Student Aid (FAFSA).

In some instances graduate students may qualify for positions as head residents in the University's housing program. Information on available positions

### Angelo and Jennette Volpe Library

The Angelo and Jennette Volpe Library is a centralized location for students to find information for academic development. In recent years, the library has undergone renovations to establish the 30,000 square foot Learning Commons, transforming the traditional library into a collaborative learning environment for students.

Library resources include both print and electronic collections with librarians to help students find the information they need. Students also have access to materials from other libraries through Interlibrary Loan. Individual desks, large study tables, private group study rooms, and practice presentation rooms are available to students for work on any project. The library offers computers, laptops, and multimedia equipment for student use.

# **Multicultural Affairs**

Our mission is to provide personal, cultural, social, and academic growth and development for students of color. We provide and encourage opportunities for all students of color to learn about their history, take pride in their heritage, and explore their potential. We promote cultural awareness by providing an environment that embraces diversity.

Our office provides programs designed to encourage cultural awareness, as well as, educational opportunities outside the classroom. In addition, we provide tutoring, academic counseling, scholarships and internships to improve academic performance.

The Office of Multicultural Affairs is located in the Leona Lusk Officer Black Cultural Center, which houses a computer lab, conference room, and a library of African-American authors. We hope you will come visit and relax. It is a great place to meet new friends and become involved with student organizations

### **Residential Life**

Tennessee Tech has 15 residence halls and a 304-unit apartment complex--called Tech Village Apartments--which provides housing accommodations for enrolled students--both undergraduate and graduate.

Residence hall rooms are designed for double occupancy; however, a few single rooms are available. Rooms are furnished to include standard twin beds and mattresses, desks, chairs, dressers, telephone, smoke detector, mini blinds, closets and a wastebasket. Additionally, all rooms receive expanded basic cable service at no additional charge. All residence halls have laundry facilities located in each building. Students may provide their own personal items to make their room more unique and comfortable.

Tech Village apartments are newly renovated and assigned to students in the following priority: married students, single students with child(ren), graduate students, students with disabilities, senior undergraduate students, and faculty/staff. Each apartment has a telephone, stove, refrigerator, garbage disposal, dishwasher, smoke detector, fire extinguisher, expanded basic cable service and mini blinds. Tech Village has a laundry facility, a community center with ice machine. Your monthly rent includes expanded basic cable service, local telephone service, water service, and garbage removal. Occupants pay for electric utilities and long-distance phone calls.

All residence halls are connected to ResNet. ResNet is short for Residence Hall Computer Network. Each of these residence hall rooms has a ResNet connection for each occupant, provided the student has a personal computer. Residents also have access to computer labs in designated residence hall lobbies and the Tech Village community center. Additionally, all residence halls and Tech Village students will have a voice mailbox assigned to them to be used in conjunction with their telephone service.

To secure an assignment on campus, simply complete either a residence hall or Tech Village application or by contacting the Office of Residential Life by calling (931) 372-3414 or toll free 1-800-255-8881 or online at www.tntech.edu/reslife/. On-line deposits may be made to secure your apartment/room. Applicants for residence hall assignments will be notified by the third week of July for a fall semester assignment, the second week of December for a spring assignment and the first week of May for a summer assignment. Applicants for Tech Village assignments will be notified as apartment space is available. Tech Village applicants are not guaranteed an apartment assignment; therefore, consider researching other housing options in the event an apartment does not become available.

#### Services for Students with Disabilities

The Office of Disability Services program is designed to improve the educational opportunities of students with disabilities and to create an accessible physical environment so that students may obtain their educational objectives. The Office also provides the University community with information pertinent to the successful integration of students with disabilities into the environment, as well as within the community at large.

All students with disabilities are urged to come by the Office of Disability Services to discuss their educational plans and any special needs they might have. Official documentation of a disability is necessary to determine the level of services that may be needed. The Office is located in Room 112, University Center. Students may also call for an appointment at (931) 372-6119.

#### **Campus Health Services**

Tennessee Technological University has a state-of-the-art campus health center which provides medical services for minor illnesses or injuries to any student enrolled at the University on a walk-in basis during hours of operation. The health service staff includes nurses, a nurse practitioner, physician, and pharmacist who plan and implement care for students during daytime hours Monday through Friday. The only charge made to a student is for medications, treatments, supplies, or laboratory work.

The student is responsible for expenses incurred for ambulance service, calls at a local physician's office, emergency services, and other services provided at Cookeville Regional Medical Center. Health and accident insurance is available to each student upon his/her registration at Tennessee Tech. This insurance coverage is authorized and approved by the Tennessee Board of Regents. Coverage provides hospital, surgical, and in-hospital medical protection on a year-round basis beginning with the first day of fall registration and continuing until the first day of fall registration the following year. Students may enroll in the plan during registration or at any time during the year by picking up an application at the Health Services Office (Infirmary).

Two (2) plans of coverage are available at reasonable rates. Optional maternity coverage is offered under both plans. Details concerning this insurance are available at the Student Health Service and during registration. Students are encouraged to participate in one (1) of the insurance plans, as it supplements the above services offered by Campus Health Services.

# **Tennessee Tech Board of Trustees**

The Tennessee Tech Board of Trustee's were appointed by the Governor of Tennessee and approved the Tennessee General Assembly on February 13, 2017.

#### Current Trustee's Include:

Trudy Harper, Chair

**Daniel Hines** 

Tom Jones

Fred Lowery

Thomas Lynn

Rhedona Rose

Johnny Stites

Teresa Vanhooser

Captain Barry Wilmore

# Academic and Administrative Officers

#### Dr. Philip Oldham, President

#### Senior Administration

- Dr. Lori Bruce, Provost and Vice President for Academic Affairs
- Dr. Robert Owens, Chief Diversity Officer
- Dr. Claire Stinson, Vice President for Business and Fiscal Affairs
- Dr. Cynthia Polk-Johnson, Vice President for Student Affairs
- Vacant, Vice President Research
- Dr. Kevin Braswell, Vice President of University Advancement
- Dr. Mark Stephens, Senior Associate Provost and Dean of the College of Graduate Studies
- Dr. Sharon Huo, Associate Provost
- Mrs. Karen Lykins, Vice President Enrollment and Communication
- Dr. Terry Saltsman, Chief Government Affairs Officer
- Mark Wilson, Director of Athletics
- Kevin Vedder, Associate Vice President of Human Resources

#### Academic Deans

- Dr. Darron Smith, Dean of the College of Agriculture and Human Ecology
- Dr.Jeff Roberts, Interim Dean of the College of Arts and Sciences
- Dr. Thomas Payne, Dean of the College of Business
- Dr. Jennifer Shank, Dean of the College of Fine Arts
- Dr. Lisa Zagumny, Dean of the College of Education
- Dr. Joseph Slater, Dean of the College of Engineering
- Dr. Mike Gotcher, Dean of the College of Interdisciplinary Studies
- Dr. Kimberly Hanna, Dean of Whitson-Hestor School of Nursing
- Dr. Sharon Holderman, Interim Dean of University Library and Learning Assistance

# Administrative Staff

For the most current listing of Tennessee Tech administrative staff, visit the TTU home page and click on in the search bar click on "People Finder". You may search by name or department.

# Presidents of the University

Thomas Alva Early	1916 - 1920
University of Georgia.	
Quentin Miller Smith	1920 - 1938
B.S., George Peabody College for Teachers, 1917; M.A., 1927.	
James Millard Smith	1938 - 1940
B.S., West Tennessee State Teachers College, 1929; M.A., George Peabody College for Teachers, 1930.	
William Everett Derryberry	1940 - 1974
B.A., Summa Cum Laude, The University of Tennessee, 1928; B.A., (Honours) School of English Language and Literature; and M.A., Oxford University, Oxford, England, 1932; D.Litt., University of Chattanooga, 1965; LL.D., Pepperdine College, 1967.	
Arliss Lloyd Roaden	1974 - 1985
A. A., Cumberland Junior College, 1949; B.A. Cum Laude, Carson-Newman College, 1951; M.S., The University of Tennessee, 1958; Ed.D., 1961.	
Wallace Samuel Prescott	1985 - 1987
B.S., Tennessee Polytechnic Institute, 1946, M.S., The University of Tennessee, 1952; Ph.D., University of Illinois, 1961.	
Angelo Anthony Volpe	1987 - 2000
B.S., Brooklyn College, 1959; M.S., University of Maryland, 1962; Ph.D., 1966.	
Robert R. Bell	2000 - 2012
B.S., University of Florida, 1969; M.A., 1970; Ph.D., 1972.	
	2012 - present

# Philip Oldham

B.S., Freed-Hardeman University, 1980; Ph.D., Texas A&M University, 1985.

# **Organization of the College of Graduate Studies**

The College of Graduate Studies reports to the Provost's Office and is reponsible for promoting, coordinating, enhancing the quality of, and serving as the advocate for graduate education programs at Tennessee Technological University. Our goals are to enhance the intellectual community of scholars among graduate students and faculty; provide quality control of all graduate education programs; promote academic excellence of all graduate programs; and support and facilitate research and scholarly activities. The policies that govern the college are developed by the Graduate Studies Executive Committee which includes faculty members, admistrators and student members.

- Graduate Studies Executive Committee
- Graduate Faculty
- Graduate Assistants

# **Graduate Studies Executive Committee**

Policies that govern the organization and administration of the College of Graduate Studies are developed by the Graduate Studies Executive Committee. As authorized by the Administrative Council of the University, the membership of this committee includes a minimum of nine (9) faculty members, representing the six (6) colleges in which graduate programs are offered; a minimum of eight (8) administrators, to include representation from each of the six (6) colleges; a minimum of four (4) student members, also representing the six (6) colleges; and such nonvoting advisory members as may be determined by the President of the University. The Dean of the College of Graduate Studies serves as executive officer. All appointments are made by the President. The chairperson of the committee is elected annually.

The Dean of the College of Graduate Studies, in collaboration with the Executive Committee, exercises overall review and supervision of graduate programs and provides leadership in developing new programs and in improving standards for existing programs.

# **Graduate Faculty**

Status	Minimum Eligibility Criteria	Responsibilities	Term *
FULL -full-time faculty member, emeriti, senior affiliate faculty or academic administrator holding faculty rank; -rank of assistant professor or higher -tenured or tenure-track	-Meets criteria for Associate Membership -criteria for reappointment are based on evidence of continued pattern of scholarly or creative activity of the quality expected for initial membership.	-may serve as a student's academic advisor for the Doctor of Philosophy degree; -may teach graduate courses for Master's, Specialist, and Doctoral degrees	6 Years

### Appointment and Qualifications of Graduate Faculty

ASSOCIATE -full-time faculty member who is not eligible for full membership	-holds an earned doctorate or equivalent terminal degree in an appropriate discipline from an appropriately accredited institution; -demonstrated competence to carry out the departmental needs for graduate teaching, advisement, or research	-may serve as a student's academic advisor for Master's and Specialist degrees -may teach graduate courses for Master's, Specialist, and doctoral degrees	3 Years
ADJUNCT -part-time faculty who are employed for graduate teaching, advisement, or research	-holds an earned doctorate or equivalent terminal degree in an appropriate discipline from an appropriately accredited institution; -demonstrated competence to carry out the departmental needs for graduate teaching, advisement, or research	-may serve as a committee member for Master's and Specialist degrees; -may teach graduate courses for Master's, Specialist, and doctoral degrees	3 Years
CLINICAL -full or part-time faculty who participate in directing educational experiences in a clinical/professional setting where the faculty member practices	-holds at least a master's degree and professional certification in an appropriate discipline from an appropriately accredited institution/agency/association and relevant experience in the field of study	-may only teach clinical or practicum designated courses	3 Years

\* Eligibility for renewal is based on a review of credentials during the years of their appointment period listed.

All appointments to memberships on the graduate faculty are made by the President based upon recommendations submitted by departmental chairpersons with suitable endorsement from the dean of the college, the Dean of the College of Graduate Studies, and the Vice President of Academic Affairs. The appropriate forms may be obtained from the College of Graduate Studies website.

It is also possible for a member of the Graduate Faculty to have their Graduate Faculty status revoked by the dean of their college or school, or the Dean of the College of Graduate Studies, outside the periodic review process. Revocation may occur for egregious acts or when a Graduate Faculty member fails to fulfill the responsibilities of a member of the Graduate Faculty to teach graduate student(s) effectively, in a civil, professionally appropriate manner; to do scholarly research and creative work of high quality or remain active in the practive of the profession; to adhere to university policies related to graduate programs; and to direct the research/professional development of graduate student(s) so that they progress toward graduation in a timely manner appropriate to the field. If Graduate Faculty status is revoked, the faculty member has the right to make an appeal against the decision to the Provost. This appeal must be made in writing within 14 days of the Dean of the College Studies providing notification of the removal of Graduate Faculty status. The Provost is the final arbiter of the decision to revoke Graduate Faculty status.

### **Responsibilities of the Graduate Faculty**

An instructor of any course for which students receive graduate credit must be a member of the graduate faculty. When students are enrolled in undergraduate classes (4000/5000) for graduate credit, the faculty

member has the responsibility of making appropriate additional assignments to ensure students receive proper value from the courses. A general description of the extra work required of students taking a 4000/5000 level course for graduate credit must be included in the description of the course approved by the Graduate <del>School</del> Studies Executive Committee. Instructors of undergraduate courses are provided class rolls that show the names of those students seeking graduate credit for work in their classes.

A faculty member may not direct independent study/research courses taken by a student who is a relative of the faculty member and may not be a member of a relative's graduate advisory committee. For the purposes of this policy, "relative" means a parent, foster parent, parent-in-law, child, spouse, brother, foster brother, sister, foster sister, grandparent, grandchild, son-in-law, brother-in-law, daughter-in-law, sister-in-law, or other family member who resides in the same household.

### **Responsibilities of Departmental Chairperson**

Primary responsibility for determining that a faculty member meets the above requirements rests with the departmental chairperson and those faculty members in the department who are members of the graduate faculty; with oversight being provided by the dean of the college, the Dean of the College of Graduate Studies, and the Vice President for Academic Affairs. Service as a graduate student's academic and/or research advisor must be reviewed and approved by the student's departmental chairperson, the dean of the college, and the Dean of the College of Graduate Studies. At the discretion of the departmental chairperson, responsibilities of an associate member may be any of those normally given to a full member of the graduate faculty, except service on the Graduate Studies Executive Committee, or serving as a doctoral-level academic or research advisor.

The chairperson of any department offering a graduate degree may act in any capacity open to a graduate faculty member and has certain administrative responsibilities pertaining to the graduate program. The chairperson will oversee the process of reviewing applications of prospective graduate students including working with faculty in the department to develop admission criteria and an application review process; and nominating qualified faculty members for appointment to the graduate faculty. The departmental chairperson also provides direction and coordination in supporting departmental faculty members in the development of research projects and in the appropriate utilization of facilities.

# **Organization and Appointment of Advisory Committee**

The advisory committee may be appointed during the student's first term but no later than the term in which 15 credits of course work are to be completed. The student, in consultation with the departmental chairperson or academic advisor, will determine a minimum of three (3) in the Master's and Specialist in Education, four (4) in the doctoral program in Education; five (5) in the doctoral programs in Engineering and Environmental Sciences, suitable graduate faculty members who are willing to serve as voting members of the committee. Degree programs with a capstone course will have oversight of a pre-assigned Program Coordinator/Director/Chairperson. Members shall represent each of the areas in which the student expects to study, with two (2) members having background in the major area. Each area in which the student presents as many as six (6) credits should be represented by one (1) member. At least one (1) member of the advisory committee should have adequate background and research interests in the area in which the student the student has proposed a research objective.

Role	Eligibility Criteria	Responsibilities
ACADEMIC	-experienced faculty member;	-may serve as a student's academic advisor;

	-demonstrated ability to effectively mentor students	-shall chair or co-chair the student's advisory committee
	-demonstrated significant research capability;	
RESEARCH	<ul> <li>experienced in directing independent study;</li> <li>may hold rank in a department other than that in which the student is majoring</li> </ul>	-may serve as a student' academic advisor for Master's and Specialist degrees
	-research capability in a discipline closely related to a discipline associated with the student's department	

Changes to the advisory committee must be requested by the student and approved by the departmental chairperson, the dean of the college, and the Dean of the College of Graduate Studies. Except in unusual circumstances such as extended campus leave, change of teaching fields, or inappropriate advisement loads, a faculty member enjoys the prerogative of accepting or relinquishing an appointment on a student's advisory committee.

Non-university professionals may become voting members of graduate committees as consultants. These consultants must have earned a doctorate or equivalent terminal degree in an appropriate discipline and completed all procedures necessary to be appointed as an Adjunct Member of the graduate faculty. Only one (1) such member may serve on an individual student's committee, and this member may not serve as academic or research advisor. Consultants not meeting the above requirements may serve on the committee but do not have voting privileges.

Each member of a graduate student's advisory committee is expected (1) to review the student's proposed plan of study and to approve it or make recommendations to improve it; (2) to consider the student's application for candidacy including both the proposed plan of study and the research proposal and, with other members of the committee, to approve, approve with change, or disapprove the program; (3) to review the student's thesis (if one is required) prior to the comprehensive examination; and (4) to assist in the conduct of an examination to insure that the student has at least a satisfactory knowledge of the subject matter covered in the program of study and that the thesis (when required) is of suitable caliber and presents a valid investigation properly completed. The minimum required majority for all actions of the advisory committee at the master's and specialist levels is three (3) positive votes, or three-fourths of the committee members eligible to vote. At the doctoral level, four-fifths is required as the minimum for programs in Engineering and Environmental Sciences; a unanimous vote is required for the program in Exceptional Learning.

### **Responsibilities of Thesis Advisor**

The chairperson of an advisory committee assists the student in the selection of a course of study and works with the student in choosing a suitable thesis topic. The chairperson is expected to furnish appropriate assistance and encouragement when excessive difficulties arise in the investigation of the problem. At the request of the student, the chairperson schedules the comprehensive examination and is responsible for its administration and conduct, as well as the reporting of the examination results to the Dean of the College of Graduate Studies. The chairperson is responsible for assisting the student in ensuring the thesis is error-free in regards to format, grammar, spelling, punctuation, and content thereby meeting the standards of excellence expected by the advisory committee, department, and the College of Graduate Studies. Only grades of SP and NP shall be used to indicate a student's progress in thesis or dissertation credit.

# **Turnitin Use Guidelines & Self-Study Materials**

Turnitin is software that Tennessee Tech University provides to faculty to evaluate student work for originality, online grading, and peer review. This resource has been made available to the graduate school faculty and offers an excellent mechanism for educating students about the nature of academic integrity, as well as the mechanics of proper citation of sources.

Before you begin using Turnitin we strongly recommend that you go through a brief set of self-study training materials available through iLearn. Also, please familiarize yourself with the current TTU Student Academic Misconduct Policy 217.

# **Graduate Assistants**

#### Preamble

Programs of graduate study are designed to transform the individual from student to (knowledgeable practitioner or) professional scholar. When a graduate assistantship is well conceived and executed, it should serve as an ideal instrument to help facilitate the desired transformation. The primary goal of an assistantship, then, is to facilitate progress toward the graduate degree. Rather than interfere or conflict with the student's educational objective, the assistantship is to aid in the prompt and successful completion of the degree program. While the student assistant makes progress toward an advanced degree, he or she also receives work experience in a profession under the supervision of a faculty mentor.

The graduate assistant is both student and employee. As a student, the graduate assistant is expected to perform well academically to retain the assistantship. He or she is to be counseled and evaluated regularly by a faculty mentor so as to develop professional skills. As an employee, the graduate assistant is expected to meet teaching, research, and/or administrative obligations. He or she is to work under the supervision of experienced faculty and receive in-service training. In sum, the graduate assistant receives financial support for graduate study by contributing to the teaching and/or research mission of the university. The totality of responsibility may be greater than that required of other students or staff members, but the opportunities for professional development also are greater for the graduate assistant.

- Tennessee Conference of Graduate Schools

#### Appointment of Graduate Assistants

There are four (4) classifications of graduate assistantships:

- 1. Graduate Teaching Assistant (GTA)
- 2. Graduate Teaching Associate (GTS)
- 3. Graduate Support Assistant (GSA)
- 4. Graduate Research Assistant (GRA)

Appointments are made upon unit recommendation of the department in which the assistantship is available, provided the recommendation is appropriately endorsed by the Dean of the College and the Dean of the College of Graduate Studies. Unless other arrangements are specified, it is assumed the graduate assistant will pursue a degree objective in the department where the assistantship assignment is made. Applications for assistantships are found on the Graduate College website.

Graduate Assistantship awards are available for qualifying graduate students. Consideration is given on the basis of academic preparation, major area of study, and the availability of funds. Additional information may be found on the Graduate College website.

A graduate student must be admitted to full standing in a Tennessee Tech graduate program to be eligible to apply for a graduate assistantship. The period of appointment is normally for one (1) academic year at a stipend determined by the department in which the assistantship is available.

The graduate assistant must maintain a cumulative 3.0 GPA. If the Graduate Assistant's cumulative GPA falls below the required 3.0 GPA, but not less than 2.0 GPA, the Appointing Authority may authorize continuation under probationary status for one semester.

#### **Overview of Duties of Graduate Assistants**

Graduate Assistantships are an option for graduate student funding for higher education and are a form of graduate student employment, providing a compensation package that includes both a monthly stipend and

a waiver for tuition and fees. The assistantship allows students to perform research, teaching or other support services for the University as part of their academic professional training and development. Assistantship students will be appointed as a Research Assistant (GRA), Teaching Assistant (GTA), Graduate Teaching Associate (GTS), or Graduate Support Assistant (GSA) with a maximum of 20 hours per week of assigned duties. The majority faculty advisor (or other assigned departmental faculty) determines the duties of the appointment. No vacation or sick benefits are applicable, but there will be no change in monthly stipend amounts and no Graduate Assistantship services required for any University holidays that the University is closed. Arrangements for any variation in work hours, including time off for vacation, holidays, or illness, should be made individually with the major advisor (or other assigned faculty). Graduate assistants receiving teaching, research, or support assignments are expected to devote sufficient hours per week as may be required to perform all duties necessary to satisfactorily complete all degree requirements. Students holding full assistantships are assigned duties which require approximately one-half the workload of a full-time faculty member.

An international graduate student, who is on an F-1 or J-1 visa, can work no more than 20 hours per week while school is in session. On-campus employment may exceed 20 hours per week during the summer for eligible international students who plan to register for the following semester if approval is granted by their major advisor, department chair, college dean, International Education, and the Dean of the College of Graduate Studies. Under federal regulations, volunteering by an international graduate student for teaching, research, or other support activity is regarded as employment that must be compensated at a fair wage.

Each academic college and/or department may have requirements in addition to the University. Graduate students are required to become knowledgeable of college and/or departmental policies concerning Graduate Assistantships.

#### **TYPES OF ASSISTANTSHIPS**

A graduate student may hold an assistantship in one of the following categories:

#### 1. Graduate Teaching Assistant (GTA)

Graduate Teaching Assistants work under the the direct supervision of a Tennessee Tech faculty member performing one or more of the following responsibilities:

- Assist in teaching a classroom section of a course,
- Assist in teaching a laboratory or discussion section of a course,
- Tutor or provide other special assistance to Tennessee Tech students,
- Assist a faculty member in preparing lectures, grading, advising, and other duties necessary to conduct a course, or
- Assist directly or indirectly in instruction or supervision of Tennessee Tech students in community programs, internships, or seminars for practicing professionals.

#### 2. Graduate Teaching Associate (GTS)

A GTS may have the same type of responsibilities as a GTA, but will have the responsibility of teaching an undergraduate course and be listed as a primary instructor of record for undergraduate courses only.

The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) specifies that a GTS who has primary responsibility for teaching a course for credit and/or assigning final grades for such a course must:

- Have earned at least 18 graduate credit hours in his/her teaching discipline,
- Be under the direct supervision of a Tennessee Tech faculty member experienced in the teaching discipline,

- Receive regular in-service training, and
- Be regularly evaluated by the GTS's direct supervisor.

#### 3. Graduate Support Assistant (GSA)

Graduate Support Assistants are appointed to perform various types of duties other than those related directly to teaching or research, such as supervisory or administrative functions, by the Appointing Authority.

#### 4. Graduate Research Assistant (GRA)

A Graduate Research Assistant has varying duties according to the specific research project to which the graduate student is assigned by the Appointing Authority. The duties of a GRA are limited to research activiteis.

#### **Requirements for Eligibility and Maintaining an Appointment**

- 1. A graduate student must be admitted to full standing in a Tennessee Tech graudate program to be eligible to apply for a graduate assistantship.
- 2. A graduate student seeking a graduate assistantship must complete the Graduate Assistantship application and file a copy with each department in which the graduate student is seeking a graduate assistantship.
- 3. No Tennessee Tech employee can make a graduate assistantship offer in writing or verbally unless s/he has explicit authority to make such offers.
- 4. The Appointing Authority should send a copy of all international student graduate assistantship offer letters to the TTU International Education office.
- 5. Graduate students who are in a co-op program are not eligible for a Graduate Assistantship.
- A Graduate Assistant will perform all graduate assistantship duties at the Tennessee Tech campus or at a Tennessee Tech approved off-campus facility under the direct guidance of his/her assigned supervisor or Appointing Authority.

#### **Graduate Assistant GPA Requirements**

A Graduate Assistant must maintain a cumulative 3.0 GPA. If a Graduate Assistant's cumulative GPA falls below the required 3.0 GPA, but not less than 2.0 GPA, the Appointing Authority may authorize continuation under probationary status for one semester.

#### Permissible Loads of Graduate Assistants

Registration requirements for Graduate Assistants to receive and maintain full-time graduate student status, is as follows:

- 1. For the summer semester, a Graduate Assistant must register for a minimum of one (1) graduate credit hour but not more than 12 graduate credit hours.
- 2. For the fall and spring semesters, a Graduate Assistant must register for a minimum of six (6) graduate credit hours but not more than 12 graduate credit hours.

#### **Qualifications of Graduate Teaching Associates (GTS)**

The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) specifies that Graduate Teaching Associates who have primary responsibility for teaching a course for credit and/or assigning final grades for such a course must have earned at least 18 graduate semester hours in their teaching fields, be under the direct supervision of a faculty member experiences in the teaching discipline, receive regular in-service training, and be regularly evaluated.

The 18-hour requirement does not apply to Graduate Teaching Assistants who are engaged in assignments such as laboratory assistance, teaching physical education activities, attending or helping prepare lectures, grading papers, keeping class records, and conducting discussion groups.

The appropriate departmental chairperson has responsibility for certifying that the 18-hour requirement is met either through coursework or by documentation that the graduate assistant meets the requirement as an exception. The appropriate form will be submitted and approved by the Office of the Provost prior to the beginning of the smester.

#### **Competency in English**

Tennessee Technological University requires all who teach to be proficient, as determined by Tennessee Tech, in oral and written English.

#### Stipends, Tuition and Fees

Each Appointing Authority establishes the minimum stipend amount for it's Graduate Assistants. The Appointing Authority will pay, on a pro rata basis, tuition, maintenance fees, debt service fees, TN eCampus on-line fees, MBA distance course fees, and some special academic course fees based upon the Graduate Assistant's assistantship classification as full-time (100%) or one-half time (50%) assistantship. The Graduate Assistant is responsible for all other costs including books, international fees, and any other fees assessed.

Only courses listed on the graduate student's program of study will be covered by the graduate assistantship.

Unless a Graduate Assistant receives prior approval from the Appointing Authority, course repetitions and course withdrawals will not be covered by the graduate assistantship.

Graduate Assistants must notify the Appointing Authority of all course withdrawals.

#### Termination/Resignation/Cancellation of Graduate Assistantships

Absent good cause, if a Graduate Assistant fails to meet the requirements in the offer letter, the Appointing Authority will terminate the assistantship.

All graduate assistantships terminate immediately if the Graduate Assistant is dismissed for academic reasons.

If a Graduate Assistant decides to resign from his/her assistantship before expiration of the assistantship, the Graduate Assistant should notify the Appointing Authority in writing two (2) weeks before the date of resignation and should complete an exit interview with the Appointing Authority.

If the Appointing Authority detemines that the Graduate Assistant has completed his/her degree program and all research requirements mid-semester, the Appointing Authority may cancel the stipend for the Graduate Assistantship or continue it until the end of the semester.

If Tennessee Tech terminates the graduate assistantship or the Graduate Assistant resigns, forfeits, or withdraws from Tennessee Tech during a semester:

- The Graduate Assistant will be responsible for paying his/her academic tuition fees on a pro rata basis for the remainder of the term.
- The Graduate Assistant's financial responsibility will be based on the number of days left in the semester at the time the assistantship ends and reclassification of residency in accordance with TTU Policy 253 (Residency Classification).
- Should a Graduate Assistant believe there is sufficient justification for an exception to the tuition fee balance owed by the Graduate Assistant, s/he must submit the Request for Exception to University Requirement form to the Tennessee Tech Bursar's office for review and final disposition.

#### **Resolution Regarding Graduate Scholars,**

#### Fellows, Trainees, and Assistants

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

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

-National Council of Graduate Schools

# **General University Graduate Admissions Requirements**

Admission to the College of Graduate Studies is open to anyone holding a bachelor's or master's degree from an accredited college or university (for a list of accrediting agencies recognized, refer to the U.S. Department of Education website). A foreign degree must be equivalent to a U.S. Bachelor's degree and must be accredited by its regional or national accreditation agency or Ministry of Higher Education. Applicants should have completed undergraduate or graduate work of sufficient quality and scope to enable them to successfully pursue graduate study. Tennessee Tech University offers equal educational opportunity to all persons, without regard to race, religion, sex, age, creed, color, national origin, or disability.

Students are admitted to Tennessee Tech University through a cooperative effort of the Graduate College and the departments, colleges, and schools of the University. When the Graduate College receives the student's application material, an official file is established. The department then reviews the application file and makes a recommendation to the Graduate College. The Graduate College notifies applicants as soon as a decision has been reached.

Applicants must submit the following for admissions consideration:

- An application for admission.
- Official transcripts of undergraduate and graduate credit from all institutions attended.
- Letters of recommendation from persons acquainted with the applicant's scholastic and professional accomplishments. The individual department will determine the requirements for letters of recommendation.
- Graduate admissions test scores. The individual major department or division will determine the minimum test score requirement for admission and readmission, subject to approval by the respective college-level committees, college dean, and the Graduate Studies Executive Committee.
- All graduate applications must be accompanied by a one-time non-refundable graduate application fee (\$35.00 for domestic applicants; \$40.00 for international applicants). Applications received without the application fee will not be processed.
- Any other applicable requirement required by the major department or division to which the applicant is applying.

An applicant who was previously enrolled in a graduate degree program but had a break in enrollment, excluding the summer term, must reapply.

All application materials become the property of Tennessee Tech and will not be returned to the applicant regardless of whether admission is approved or denied.

In order to be admitted to a degree program in any academic unit, applicants are also required to meet any additional standards set by the department, school, or college. Applicants are selected on a competitive basis and, therefore, admission is not granted to all applicants who meet only the minimum requirements. In addition, academic programs may have additional requirements such as portfolios, proficiency examinations, professional licensing, etc.

Individual program requirements are described in the Tennessee Tech University Graduate Catalog and on department websites. Requirements are subject to change. The Graduate College no longer accepts hard-copy (paper) applications. Please visit the Graduate College web site for detailed program admission requirements, deadlines, and to begin the on-line application process.

Additional Admissions Requirements for International Students:

In addition to the requirements stated above, international students must submit sufficient proof, as determined by Tennessee Tech, of adequate training and ability in the use of English as evidenced by a
satisfactory score on recognized and acceptable tests. Acceptable test scores are defined under the admissions international student tab in this catalog.

Tennessee Tech will prepare Form I-20 for those admitted students seeking to apply for F-1 visa and DS2019 for those admitted students seeking to apply for a J-1 visa.

Enrollment in a program is contingent on the student receiving an appropriate visa.

All credentials become the property of the University and will not be forwarded or returned. If the applicant does not enroll, credentials will be maintained in active files for 1 year, after which they will be destroyed. After that time, candidates must reapply for admission and submit a new set of credentials if they wish to be admitted to the Graduate College. Students who do not enroll for a Fall or Spring semester must apply for readmission.

Admission Classifications

### **International Students**

International students having adequate preparation for graduate study may apply for admission, but applications should be filed at least six months prior to the anticipated date of enrollment. Midyear enrollment is strongly discouraged. In addition to the requirements mentioned in the paragraphs above, all students from non-English-speaking countries must submit proof of adequate training and ability in the use of English as evidenced by a satisfactory score on recognized and acceptable tests administered in the student's home country. Normally, it is expected that an applicant will submit a score of at least 525 (71 internet-based or 197 computer-based) on the Test of English as a Foreign Language (TOEFL) or base score of 6.0 on the International English Language Testing System (IELTS) or 48 on the Pearson Test of English (PTE). A student may waive the TOEFL or IELTS requirements if they earn Level 6 in all course areas and receive a letter of recommendation from the administrators of the International English Institute (IEI). Not all programs permit this. Please review the admissions criteria for your desired degree program. A TOEFL score of at least 550--79 internet-based or 213 computer-based or a PTE score of 53 is required for Engineering, M.B.A. and Nursing. If admitted to the Graduate School such students shall have as a condition attached to their admission the requirement of the English Placement Test, prior to enrollment, at Tennessee Technological University. If the examination reveals that the student does not possess an adequate command of English, the student will be required to enroll in noncredit remedial English courses (ESL 1010-20) and will be required to reduce the graduate course load accordingly.

	TOEFL - Test of English as a Foreign Language			IELTS	FLS	PTE
COLLEGE/SCHOOL	Paper- based Test	Computer- based Test	Internet- based Test	International English Language Testing System	International Language School	Pearson Test of English
Arts & Sciences, Education	525	197	71	6.0	Level 16 or 18*	48
Business, Engineering, Nursing	550	213	79	6.0	Level 16	53

\*Check requirements of the specific college or department to determine level needed for admissions.

Applicants must also give satisfactory proof of sufficient funds to cover all of their expenses including travel.

The Graduate School will not knowingly consider for admission any person who has entered the United States via an immigration visa issued for another university until that person has been enrolled in that university; thereafter, the usual transfer procedures would be implemented. International students who wish to transfer from another university to Tennessee Tech must submit the usual materials required for initial admission; additionally, each applicant must furnish:

- 1. official transcripts from the current institution;
- 2. a verification statement from that institution's international student advisor;
- 3. photocopies of Form I-20ID (front and back), the passport, the visa, and Form I-94.

Only transfer credit from an accredited university is permitted; each student is expected to complete a full program of study at Tennessee Technological University.

In cases where the undergraduate record may furnish insufficient evidence of any applicant's potential for success in graduate study, additional qualifying examinations may be administered by the department in which the applicant proposes to study. The cost of the tests will be borne by the applicant.

If admission is approved, Form I-20 will be issued as follows: not later than June 1 for the fall term, November 1 for the spring term, and April 1 for the summer term. These dates are consistent with

immigration regulations and apply to all F-1 nonimmigrant students including those transferring from other U.S. institutions and those who are already enrolled at Tennessee Tech who wish to change from one degree program to another.

International students who are deficient in either written or spoken English are required to enroll in ESL 1010-1020 and to earn a grade of at least "C" in each course; waiver of this requirement may be permitted on the basis of satisfactory scores on the English Placement Test.

### **Resident Alien**

A lawful permanent resident of the United States (holder of a "green card") may be required to take the English Placement Test or other tests to determine proficiency in English and the necessity for taking courses in English.

### **Admission Classifications**

Students admitted to a master's program will be placed in one of the following categories: full standing, provisional standing, or special standing.

#### **Full Standing**

This category indicates that in the opinion of the appropriate department and the Associate Dean of Graduate Studies the student has an adequate background for pursuing graduate work, and that all minimum requirements for admission to graduate standing have been met.

#### **Provisional Standing**

This classification denotes that the student does not qualify for full standing due to deficiencies in meeting specific program requirements. "Provisional Standing" is not equivalent to "conditional" admission for the purpose of international student enrollment.

#### **Special Standing**

A classification that denotes that the student has declared a non-degree graduate objective.

#### **Conditional Admission**

A classification that denotes an applicant has applied for graduate admission, has met minimum GPA requirements, and has been issued a letter to assist with obtaining immigration documents to attend an English language institute. This does not grant admission to the applicant nor does it guarantee admission to Tennessee Tech or a specific program.

#### Change of Classification

The College of Graduate Studies will change a student's Provisional Standing to Full Standing when the deficiencies identified at the time of admission are removed, provided, at the sole discretion of the department and college,

1. the deficiencies are cured prior to the completion of 15 graduate hours or

2. after acceptable completion of nine (9) graduate hours if the sole deficiency is caused by an unacceptable admissions exam score. A student's failure to remove the deficiencies by the deadline established by Tennessee Tech Graduate Admissions will result in a registration hold being placed on future registrations until such time as the deficiencies have been removed.

### College of Engineering - Doctor of Philosophy Admission Requirements

A graduate program leading to a Doctor of Philosophy (Ph.D.) degree in Engineering is offered by the College of Engineering. When applying for admission, a student must state on the application the specialization area of study for which admission is requested.

The basic admission standards for the Ph.D. program are the same as for the MS programs, except that, additionally, an applicant is expected to have completed an MS degree in an academic area appropriate to the proposed area of study and to have earned an MS GPA of at least 3.5 on a 4.0 scale.

Though the general requirement for admission to the Ph.D. program is a master's degree in an appropriate discipline, students with a bachelor's degree may be admitted to the Ph.D. program directly on exceptional basis, provided the applicant has a record of excellent academic performance in an appropriate engineering program undergraduate program. The applicant's test scores, personal recommendations, and relevant work experience must indicate a high potential for success in doctoral studies and research. In addition, factors such as appropriateness of the applicant's research objectives to the research interests of the program faculty, availability of faculty to supervise the applicant's research, and prior research accomplishments of the applicant will also influence the admission decision.

Fulfilling the minimum requirement does not guarantee admission; an applicant who does not meet the above minimum, but appears to have reasonable potential for success as a Ph.D. student, may be admitted to provisional standing. His/her status may be changed to full standing after satisfying requirements specified by the Associate Dean of Engineering for Graduate Studies and Research, in consultation with the appropriate departmental chairperson, at the time of admission.

If admitted in provisional standing at either the MS or Ph.D. level, the student must remove all deficiencies and apply for reclassification to full standing prior to the completion of 15 graduate hours.

Sometimes a master's-level student takes more graduate-level courses than are required for the degree because the student is expecting to continue on to the Ph.D. program and hopes to use the extra courses to satisfy the Ph.D. coursework requirement. When this is the case, the student can request when registering for the course(s) that the course(s) be "banked" for the Ph.D. program. If the student lacks no more than 12 semester hours on the master's degree, he/she may accumulate a maximum of nine (9) semester hours which may be applied toward the Ph.D. When this is the case, the student's advisory committee must initiate approval via memo with consensus of the departmental chairperson, dean of the college, and the Director of Graduate Studies. Banked courses then show up on the student's transcript as courses taken for the Ph.D. rather than being shown as a part of his/her M.S. program. Banking course does not guarantee admission to the Ph.D. program, or, if admitted, that the student's Ph.D. advisory committee will approve the course as part of the student's Ph.D. program of study.

### **General University Graduate Admissions Requirements**

Admission to the College of Graduate Studies is open to anyone holding a bachelor's or master's degree from an accredited college or university (for a list of accrediting agencies recognized, refer to the U.S. Department of Education website). A foreign degree must be equivalent to a U.S. Bachelor's degree and must be accredited by its regional or national accreditation agency or Ministry of Higher Education. Applicants should have completed undergraduate or graduate work of sufficient quality and scope to enable them to successfully pursue graduate study. Tennessee Tech University offers equal educational opportunity to all persons, without regard to race, religion, sex, age, creed, color, national origin, or disability.

Students are admitted to Tennessee Tech University through a cooperative effort of the Graduate College and the departments, colleges, and schools of the University. When the Graduate College receives the student's application material, an official file is established. The department then reviews the application file and makes a recommendation to the Graduate College. The Graduate College notifies applicants as soon as a decision has been reached.

Applicants must submit the following for admissions consideration:

- An application for admission.
- Official transcripts of undergraduate and graduate credit from all institutions attended.
- Letters of recommendation from persons acquainted with the applicant's scholastic and professional accomplishments. The individual department will determine the requirements for letters of recommendation.
- Graduate admissions test scores. The individual major department or division will determine the minimum test score requirement for admission and readmission, subject to approval by the respective college-level committees, college dean, and the Graduate Studies Executive Committee.
- All graduate applications must be accompanied by a one-time non-refundable graduate application fee (\$35.00 for domestic applicants; \$40.00 for international applicants). Applications received without the application fee will not be processed.
- Any other applicable requirement required by the major department or division to which the applicant is applying.

An applicant who was previously enrolled in a graduate degree program but had a break in enrollment, excluding the summer term, must reapply.

All application materials become the property of Tennessee Tech and will not be returned to the applicant regardless of whether admission is approved or denied.

In order to be admitted to a degree program in any academic unit, applicants are also required to meet any additional standards set by the department, school, or college. Applicants are selected on a competitive basis and, therefore, admission is not granted to all applicants who meet only the minimum requirements. In addition, academic programs may have additional requirements such as portfolios, proficiency examinations, professional licensing, etc.

Individual program requirements are described in the Tennessee Tech University Graduate Catalog and on department websites. Requirements are subject to change. The Graduate College no longer accepts hard-copy (paper) applications. Please visit the Graduate College web site for detailed program admission requirements, deadlines, and to begin the on-line application process.

Additional Admissions Requirements for International Students:

In addition to the requirements stated above, international students must submit sufficient proof, as determined by Tennessee Tech, of adequate training and ability in the use of English as evidenced by a

satisfactory score on recognized and acceptable tests. Acceptable test scores are defined under the admissions international student tab in this catalog.

Tennessee Tech will prepare Form I-20 for those admitted students seeking to apply for F-1 visa and DS2019 for those admitted students seeking to apply for a J-1 visa.

Enrollment in a program is contingent on the student receiving an appropriate visa.

All credentials become the property of the University and will not be forwarded or returned. If the applicant does not enroll, credentials will be maintained in active files for 1 year, after which they will be destroyed. After that time, candidates must reapply for admission and submit a new set of credentials if they wish to be admitted to the Graduate College. Students who do not enroll for a Fall or Spring semester must apply for readmission.

Admission Classifications

### International Students

International students having adequate preparation for graduate study may apply for admission, but applications should be filed at least six months prior to the anticipated date of enrollment. Midyear enrollment is strongly discouraged. In addition to the requirements mentioned in the paragraphs above, all students from non-English-speaking countries must submit proof of adequate training and ability in the use of English as evidenced by a satisfactory score on recognized and acceptable tests administered in the student's home country. Normally, it is expected that an applicant will submit a score of at least 525 (71 internet-based or 197 computer-based) on the Test of English as a Foreign Language (TOEFL) or base score of 6.0 on the International English Language Testing System (IELTS) or 48 on the Pearson Test of English (PTE). A student may waive the TOEFL or IELTS requirements if they earn Level 6 in all course areas and receive a letter of recommendation from the administrators of the International English Institute (IEI). Not all programs permit this. Please review the admissions criteria for your desired degree program. A TOEFL score of at least 550--79 internet-based or 213 computer-based or a PTE score of 53 is required for Engineering, M.B.A. and Nursing. If admitted to the Graduate School such students shall have as a condition attached to their admission the requirement of the English Placement Test, prior to enrollment, at Tennessee Technological University. If the examination reveals that the student does not possess an adequate command of English, the student will be required to enroll in noncredit remedial English courses (ESL 1010- 20) and will be required to reduce the graduate course load accordingly.

	TOEFL - Test of English as a Foreign Language			IELTS	FLS	PTE
COLLEGE/SCHOOL	Paper- based Test	Computer- based Test	Internet- based Test	International English Language Testing System	International Language School	Pearson Test of English
Arts & Sciences, Education	525	197	71	6.0	Level 16 or 18*	48
Business, Engineering, Nursing	550	213	79	6.0	Level 16	53

\*Check requirements of the specific college or department to determine level needed for admissions.

Applicants must also give satisfactory proof of sufficient funds to cover all of their expenses including travel.

The Graduate School will not knowingly consider for admission any person who has entered the United States via an immigration visa issued for another university until that person has been enrolled in that

university; thereafter, the usual transfer procedures would be implemented. International students who wish to transfer from another university to Tennessee Tech must submit the usual materials required for initial admission; additionally, each applicant must furnish:

- 1. official transcripts from the current institution.
- 2. a verification statement from that institution's international student advisor.
- 3. photocopies of Form I-20ID (front and back), the passport, the visa, and Form I-94.

Only transfer credit from an accredited university is permitted; each student is expected to complete a full program of study at Tennessee Technological University.

In cases where the undergraduate record may furnish insufficient evidence of any applicant's potential for success in graduate study, additional qualifying examinations may be administered by the department in which the applicant proposes to study. The cost of the tests will be borne by the applicant.

If admission is approved, Form I-20 will be issued as follows: not later than June 1 for the fall term, November 1 for the spring term, and April 1 for the summer term. These dates are consistent with immigration regulations and apply to all F-1 nonimmigrant students including those transferring from other U.S. institutions and those who are already enrolled at Tennessee Tech who wish to change from one degree program to another.

International students who are deficient in either written or spoken English are required to enroll in ESL 1010-1020 and to earn a grade of at least "C" in each course; waiver of this requirement may be permitted on the basis of satisfactory scores on the English Placement Test.

### **Resident Alien**

A lawful permanent resident of the United States (holder of a "green card") may be required to take the English Placement Test or other tests to determine proficiency in English and the necessity for taking courses in English.

### Admission Classifications

Students admitted to a master's program will be placed in one of the following categories: full standing, provisional standing, or special standing.

#### **Full Standing**

This category indicates that in the opinion of the appropriate department and the Associate Dean of Graduate Studies the student has an adequate background for pursuing graduate work, and that all minimum requirements for admission to graduate standing have been met.

#### **Provisional Standing**

This classification denotes that the student does not qualify for full standing due to deficiencies in meeting specific program requirements. "Provisional Standing" is not equivalent to "conditional" admission for the purpose of international student enrollment.

#### **Special Standing**

A classification that denotes that the student has declared a non-degree graduate objective.

#### **Conditional Admission**

A classification that denotes an applicant has applied for graduate admission, has met minimum GPA requirements, and has been issued a letter to assist with obtaining immigration documents to attend an English language institute. This does not grant admission to the applicant nor does it guarantee admission to Tennessee Tech or a specific program.

#### **Change of Classification**

The College of Graduate Studies will change a student's Provisional Standing to Full Standing when the deficiencies identified at the time of admission are removed, provided, at the sole discretion of the department and college,

1. the deficiencies are cured prior to the completion of 15 graduate hours or

2. after acceptable completion of nine (9) graduate hours if the sole deficiency is caused by an unacceptable admissions exam score. A student's failure to remove the deficiencies by the deadline established by Tennessee Tech Graduate Admissions will result in a registration hold being placed on future registrations until such time as the deficiencies have been removed.

### **Special Admissions**

#### Admission of Faculty Members to Graduate Studies

In addition to meeting the usual requirements for admission to the graduate degree program, an employee's supervisor, the Dean of the College of Graduate Studies, and the Provost must approve the request.

#### Admission of Seniors to Graduate Courses

A senior student within 18 hours of completing the requirements for the Bachelor's Degree may take up to nine (9) hours of graduate credit (5000 and 6000 level courses) provided that:

- The student's record gives indication that the student could achieve Graduate Admissions "Full Standing" classification at the conclusion of the undergraduate program and
- The student's departmental advisor, graduate course instructor(s), chairperson of the department(s), and Associate Dean of the College of Graduate Studies approve the student's request.

A senior student within 18 hours who does not meet the "Full Standing" criteria of may take up to nine (9) hours of 5000 level courses. Credit earned in this manner may be used for either undergraduate or graduate credit but not both.

#### Admission to Fast-Track Programs

The Fast-Track program is designed to enable Tennessee Tech undergraduate students to accumulate up to six (6) credit hours of graduate coursework, to satisfy both undergraduate and graduate degree requirements, while still pursuing their undergraduate degree. These hours can include either 4000/5000 dually-listed courses taken at the 5000-level or 6000-level courses.

All courses must be taken at Tennessee Tech.

The chair of the department must approve the courses as appropriate substitutions in the undergraduate curriculum.

Participation does not change the requirements for either the undergraduate or graduate program.

A student meeting the minimum admission requirements must apply to the department for admission to the Fast Track program. The department's graduate committee will review the application and make a decision on the application.

Upon graduation from the undergraduate degree program, the student must meet all requirements for graduate admission into Full Standing in the appropriate graduate degree program. Meeting these minimum requirements does not guarantee admission to the graduate program.

#### Admission of Transfer Students

An applicant for admission who has begun a graduate program at another college or university may be considered for admission to the College of Graduate Studies at Tennessee Technological University on a transfer basis consistent with Tennessee Tech Policy 283, General Graduate Transfer Credit Requirements.

A transfer applicant must be in good standing at the institutions previously attended.

#### Admission of Nondegree Graduate Students

Admission to graduate courses is available to persons who do not seek a graduate degree. Each applicant must submit their request to the department offering the graduate course after obtaining a Tnumber through the College of Graduate Studies. The applicant must provide proof of an earned bachelor's degree acceptable to the department offering the course. The applicant will submit a simplified uniform application form developed by the College of Graduate Studies directly to the Department. There will be no application fee to enroll in a course as a non-degree student. Departments offering such courses may require pre-requisite and other requirements as appropriate to allow the applicant to enroll in the course. Permission to enroll in the course is solely at the discretion of the department offering the course. Tuition and fees for such courses are charged according to university policies.

A non-degree graduate student, who subsequently wishes to be admitted into a graduate degree or a Graduate Certificate program, must submit a regular application through the CoGS and pay the application fee. The application must be reviewed according to the regular admissions process. Once admitted, the applicant may submit previously earned graduate credit hours (as a non-degree student) to the program department for review and inclusion in the graduate degree or Graduate Certificate program. The department will determine, at their sole discretion, and in accordance with SACSCOC Accreditation Standard 9.2, the number of non-degree credit hours it will accept towards such a degree or certificate.

International students on an F1 Visa are not eligible for admission as nondegree students.

#### Admission as an Additional Bachelor's Student

An additional bachelor's student is a post baccalaureate student but is not a graduate student and should not be confused with a nondegree graduate student. An additional bachelor's student is usually working toward a second undergraduate degree or taking undergraduate or graduate courses for undergraduate credit with no degree objective in mind. Additional bachelor's students apply through the undergraduate admissions office and are not counted as graduate students. An additional bachelor's student should not register for a graduate course without prior consultation with the Associate Dean of Graduate Studies; graduate credit will not be granted for graduate courses taken while in the additional bachelor's status. A

student who wishes to pursue a graduate degree should complete an on-line Graduate Admissions application and select a graduate degree program.

#### Admission to Class as an Auditor

An auditor is one who enrolls in classes on a noncredit basis, is expected to attend class, but is not required to hand in assignments or to take examinations. If the instructor is not satisfied with the attendance, the instructor may assign a grade of "W." A student who audits must be admitted to the University as a regular or special student.

Admission to class as an auditor requires the consent of the instructor and the approval of the Director of Records and Registration. The applicant should secure the Audit Registration form from the Office of Records and Registration. Fees for audit courses are the same as those for credit courses.

#### **Readmission of Former Students**

A former graduate student at Tennessee Technological University who is not currently enrolled at the University must submit an application for readmission.

Apply Now!

### **Resident Classification**

The residence of a dependent student is presumed to be that of his/her parents. Residence (for fee-paying purposes) is interpreted to mean where the parents are domiciled. Unless the contrary appears from clear and convincing evidence, it is presumed that an emancipated person does not acquire domicile in Tennessee while enrolled as a full-time student at any public or private institution of higher education in the state. A student once classified as an out-of-state student will continue to be so classified unless a review of classification is requested. An emancipated individual who is working full time (30 hours per week or more) in Tennessee may register for up to 7 hours per term at in-state rates while establishing permanent residency.

A graduate assistant is classified as an in-state resident for fee-paying purposes only while he/she is an assistant. Residency will be reviewed when assistantship ends.

Change of residence status for tuition purposes is never automatic. A request for review must be made to the Dean of the College of Graduate Studies and adequate information must be provided by the student to warrant a review of resident status. Many factors, such as full-time employment for an extended period, are taken into consideration when a student's resident status is reviewed. If the review is negative, a request for exception may be filed with the Dean of the College of Graduate Studies and, then, the Graduate School Executive Committee.

If Tennessee residency is approved, the classification change shall be effective at the next registration after the approval has been granted.

### College of Engineering - Doctor of Philosophy Admission Requirements

A graduate program leading to a Doctor of Philosophy (Ph.D.) degree in Engineering is offered by the College of Engineering. When applying for admission, a student must state on the application the specialization area of study for which admission is requested.

The basic admission standards for the Ph.D. program are the same as for the MS programs, except that, additionally, an applicant is expected to have completed an MS degree in an academic area appropriate to the proposed area of study and to have earned an MS GPA of at least 3.5 on a 4.0 scale.

Though the general requirement for admission to the Ph.D. program is a master's degree in an appropriate discipline, students with a bachelor's degree may be admitted to the Ph.D. program directly on exceptional basis, provided the applicant has a record of excellent academic performance in an appropriate engineering program undergraduate program. The applicant's test scores, personal recommendations, and relevant work experience must indicate a high potential for success in doctoral studies and research. In addition, factors such as appropriateness of the applicant's research objectives to the research interests of the program faculty, availability of faculty to supervise the applicant's research, and prior research accomplishments of the applicant will also influence the admission decision.

Fulfilling the minimum requirement does not guarantee admission; an applicant who does not meet the above minimum, but appears to have reasonable potential for success as a Ph.D. student, may be admitted to provisional standing. His/her status may be changed to full standing after satisfying requirements specified by the Associate Dean of Engineering for Graduate Studies and Research, in consultation with the appropriate departmental chairperson, at the time of admission.

If admitted in provisional standing at either the MS or Ph.D. level, the student must remove all deficiencies and apply for reclassification to full standing prior to the completion of 15 graduate hours.

Sometimes a master's-level student takes more graduate-level courses than are required for the degree because the student is expecting to continue on to the Ph.D. program and hopes to use the extra courses to satisfy the Ph.D. coursework requirement. When this is the case, the student can request when registering for the course(s) that the course(s) be "banked" for the Ph.D. program. If the student lacks no more than 12 semester hours on the master's degree, he/she may accumulate a maximum of nine (9) semester hours which may be applied toward the Ph.D. When this is the case, the student's advisory committee must initiate approval via memo with consensus of the departmental chairperson, dean of the college, and the Director of Graduate Studies. Banked courses then show up on the student's transcript as courses taken for the Ph.D. rather than being shown as a part of his/her M.S. program. Banking course does not guarantee admission to the Ph.D. program, or, if admitted, that the student's Ph.D. advisory committee will approve the course as part of the student's Ph.D. program of study.

# College of Engineering - Master of Science Admission Requirements

An applicant for admission to any of the MS programs offered by the departments of the College of Engineering is expected to have earned a BS degree from an approved program, or its equivalent. Admission is decided based on a multi-parameter criterion that can include the following items to be evaluated by the department:

- undergraduate GPA of at least 3.0 on a 4.0 scale,
- GRE<sup>®</sup> General Test (GRE) scores with Quantitative greater than or equal to 50%; Verbal greater than or equal to 33%; Analytical Writing greater than or equal to 33%. Students with BS degrees in related fields from TTU are not required to take the GRE.
- Three (3) letters of recommendation that demonstrate strong evidence for success in the graduate program.
- Availability of appropriate faculty to serve as research advisor(s).
- Participation in undergraduate research.
- Post-BS degree professional experience relevant to planned degree of study.

- Publications in peer reviewed journals and/or award-winning presentations in technical conferences.
- International students must score at least 550 (213 computer-based or 79 internet-based) on the TOEFL or a minimum base score of 6.0 on the IELTS.

Based on the level of satisfaction of the above criterion, the department will either recommend admission to Full Standing, Provisional Standing, or Special Standing, or deny admission. Standing status may be changed to Full Standing after the student satisfies the requirements specified by the department at the time of admission.

Note: all MS degree programs, except Engineering Management, offer the Fast Track program to qualified applicants from the TTU BS program. See department details to find out more about Fast Track.

### Fees and Expenses

For the most complete and up-to-date fee and refund policy information, go to https://www.tntech.edu/bursar/tuition

No student may enroll or receive a diploma, transcript of records, or grade report until all matured debts or obligations to the University, or any phase of its program, have been cleared.

### **Registration and Enrollment Requirements**

- The School Year
- Inclement Weather Policy
- Graduate Courses
- Grading
- Grading System
- Quality Points
- Quality Point Average
- Grade of I (Incomplete)
- Quality of Work
- Permissible Loads
- Change of Major
- Course Repetition Policy
- Graduate Academic Fresh Start
- University Policies
- Fees and Expenses

### **Inclement Weather Policy**

Tennessee Technological University offices will remain open during periods of inclement weather even though classes may be canceled.

In accordance with TBR policy, faculty, administrators and staff of TTU are expected to make every reasonable effort to be at their work assignment on time, taking into consideration the personal risk involved. Administrators or staff employees who anticipate arriving late, or not arriving at work at all, should notify their

immediate supervisor of this fact as soon as possible and request annual leave for the period of absence. If faculty members must be absent from assigned classes due to inclement weather, it is their responsibility to notify the appropriate chairperson and/or dean.

If classes are not canceled despite inclement weather, students are responsible for any academic work they miss as a result of inclement weather. It is the individual student's responsibility to take the initiative in making up any missed work, and it is the faculty member's responsibility to provide students a reasonable opportunity to make up missed work. In the off-campus offerings, the students and faculty are all commuters. Furthermore, we have little or no control over the safety precautions taken at the off-campus sites. Thus, it is not unusual that such courses are canceled because of snow and/or ice during the winter. The decision to cancel classes will be made by the Provost. The information will then be disseminated as quickly as possible on the TTU website and through Text Alert.

### **Graduate Courses**

- 5000-5990 Graduate Level
- 6000-6990 Graduate
- 7000-7990 Advanced Graduate (Restricted to Graduate Students)

Graduate courses are numbered at the 5000, 6000, and 7000 levels and are offered in the College of Agriculture and Human Ecology, College of Arts and Sciences, College of Business, College of Education, College of Engineering, and College of Interdisciplinary Studies. These courses are described on the following pages and are listed by departments. Numerous senior level courses are permitted for graduate credit when offered dually as 4000 (5000) and taken at the 5000 level.

A graduate student may be permitted to register for any course which appears in the Schedule of Classes; however, only those courses taken at the 5000, 6000, and 7000 levels may be counted for graduate credit.

Courses which are dually numbered, i.e., 4000 (5000), are essentially undergraduate courses in which graduate students may earn graduate credit on the basis of required additional work defined by the instructor in the course syllabus. Graduate credit will not be given for a course numbered at the 4000 level or below. A course taken at the 4000 level may not be taken later at the 5000 level without special permission from the departmental chairperson, college dean, and the Dean of Graduate Studies.

At least 70% of the Graduate Course credit to be counted toward a master's degree must be at the 6000 level or above (with the exception of those programs that fall under state-wide numbering schemes, specifically TNeCampus, MPS, MSN, and DNP 5000 level courses.)

At least 15 Graduate Credit Hours must be taken at the 7000 level for a specialist degree, unless written approval is granted by the graduate student's advisory committee, department chair, and Dean of the College of Graduate Studies.

No Graduate Course below 6000 level will be counted toward a specialist degree unless written approval is granted by the graduate student's advisory committee, department chair, and the Dean of the College of Graduate Studies.

A non-degree graduate student subsequently admitted into a graduate program may use up to nine (9) previously earned graduate Credit Hours toward the graduate program, upon approval from the graduate student's advisory committee.

All graduate coursework is part of the graduate transcript and all grades earned are part of the cumulative GPA. This applies to all Graduate Courses completed, even if the Graduate Courses are not part of the degree requirements.

A graduate student must achieve a Grade of at least "C" on all Graduate Courses taken, including those taken for non-degree purposes, Background Courses, Mandatory or Pre-requisite courses, licensure, certification, endorsement or personal enrichment.

A graduate student must achieve a Grade of at least "C" on all undergraduate courses listed on the Program of Study. All courses will appear at each respective Academic Course Level on the graduate student's transcript.

The University reserves the right to change course numbers and course descriptions after the date of publication of the catalog, or to decline to offer the course as described when circumstances warrant such action.

Tennessee Tech will grant credit toward a graduate program for any Graduate Course in which a graduate student earns a Grade of A, B, C, S, or SP toward the final approved Program of Study, unless otherwise required by a specific program. Tennessee Tech, however, will not accept more than six (6) Credit Hours of "C" earned toward any graduate program.

A graduate student may appeal an assigned Grade through Tennessee Tech Policy 218 (Grade Appeals Policy).

### Grading

On September 1, 1951, the University adopted a 4.0 quality point scale, changing from the 3.0 scale.

### **Grading System**

Grades are indicated by letters.

- A--Excellent
- B--Good
- C--Satisfactory
- D--Passing
- F--Failure
- I--Incomplete
- NF--Fail, Never Attended
- X--Absent from Examination
- W--Withdrew Passing
- WF--Withdrew Failing
- S--Satisfactory
- U--Unsatisfactory
- SP--Thesis (Satisfactory Progress)
- NP--Thesis (No Progress)

(NOTE: Only grades of A, B, C, S, and SP are considered satisfactory at the graduate level, with not more than two (2) grades of C allowed for graduate degree purposes.)

#### **Grade Appeal Procedure**

The university grade appeal procedure is outlined in Tennessee Tech Grade Appeals Policy #218.

### **Quality Points**

Quality points are assigned to each semester-hour credit as follows:

- For a grade of A, 4 quality points
- For a grade of B, 3 quality points
- For a grade of C, 2 quality points
- For a grade of D, 1 quality point
- For grades of F, I, X, NF, W, S, SP, NP, U, and WF, no quality points.

### **Quality Point Average**

The quality point average for the semester is determined by dividing the total quality points earned by the total semester hours attempted (excluding courses in which grades of I, W, S, SP, NP, and U were earned). The cumulative quality point average is determined by dividing the total quality points for all semesters by the cumulative hours (excluding courses in which grades of I, W, S, SP, NP, and U were earned). Noncredit courses are disregarded in computing the quality point average.

When a course is repeated, the grade on repeated work as well as the original grade will be included in calculation of the quality point average. Credits attempted with a grade of I, W, S, NP, and SP are disregarded, but credits attempted with grades of X, WF, NF, and U are counted as F's.

### Grade of I (Incomplete)

An instructor may assign an "I" Grade when a student's performance has been satisfactory, but for reasons beyond the student's control, they have not been able to complete the Graduate course requirements within the allotted time.

When a Grade of "I" is assigned, the graduate student will not be required to register for the Graduate course again but must complete the original course requirements with the original instructor, if applicable.

Upon approval of the instructor, the graduate student has up to one (1) calendar year or until the time of graduation, whichever comes first, to remove the "I".

Completion of a Graduate course with a Grade of "I" does not count toward enrollment hours.

The "I" is excluded from the calculation of the graduate student's Current GPA and Cumulative GPA until a Grade is earned.

If the "I" is not removed within the established time limits, it is automatically changed to a Grade of "IF". The Grade of "IF" will remain on the student's academic record permanently and will be included in the Cumulative GPA. A Graduate student cannot graduate with an "I" on their record.

### **Quality of Work**

#### **Required QPA**

A graduate student is required to maintain a cumulative grade average of at least B (3.0) on all courses taken for degree purposes. Credit toward a degree objective will be granted for any graduate course in

which a grade of A, B, C, S, or SP (for thesis or dissertation) is assigned; however, not more than six (6) hours of C credit will be accepted. If a grade of D, U, F, IF, FA, WF, or NF is assigned in a degree-related course, the course must be repeated; and both the original grade and the grade for the repetition will be counted in the cumulative average.

#### **M.B.A. Requirements**

An MBA student is required to maintain a cumulative grade average of at least B (3.0) on all courses taken for degree purposes, and must achieve a grade of B or better in BMGT 6950. Students must repeat BMGT 6950 until a grade of B or better is obtained. Other courses may be repeated at the discretion of the student, and both the original grade and the grade for the repeat will be counted in the cumulative average. Any student receiving a D or an F in an MBA degree course shall be dismissed from the program.

#### **Nursing Requirements**

#### Student Retention and Progression Criteria Required GPA

 Students in graduate nursing programs must meet the requirements of the College of Graduate Studies to remain in good standing. An overall grade point average (GPA) of 3.0 (B) or better must be maintained in order to graduate. Only grades of A, B and S are considered satisfactory in the graduate nursing level;
 In addition, a graduate nursing student must achieve a grade of "B" or better in every graduate nursing course. Policies of the College of Graduate Studies for progression will apply.

3. MSN students who earn less than a "B" in a required course will have one opportunity to repeat the course. The course must be repeated at the next available opportunity. Students may only repeat two required courses. The repeated grade and the original grade will be averaged into the student's overall GP A.

4. If a student's cumulative grade point average falls below 3.0, she/he will be placed on academic probation at the end of that semester. Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester. 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.

5. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GP A of 3 .0 after one semester may be subject to dismissal without a probationary term.
6. An incomplete grade ("I") indicates that the 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 work for which the "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. Students with more than one "I" grade cannot progress in the program. Time extension requests for removal of an "I" grade must be submitted to and approved by the Dean of College of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines in the Graduate Catalog will be converted to an "F."

#### Progression:

Students must report the following to the Dean of the Whitson-Hester School of Nursing (WHSON) within 72 hours of change of status or requirement:

- 1. Any adverse action taken against their RN licensure (i.e. probation, termination, suspension, limiting scope of practice, any change in activity);
- Placement in the Tennessee Peer Assistance Program (TNPAP) or any other peer assistance program;

- 3. Admission to a substance abuse rehabilitation program;
- 4. Any legal issues that may result in a change in their ability to pass a criminal background check, including but not limited to arrests or convictions (see University's Arrest and Conviction Self-Disclosure form (link)) or change of status legal status with regards to probation or parole.

Failure to disclose to the WHSON could result in automatic dismissal from the MSN program. In addition, student must disclose the same information to preceptors and clinical agencies and provide appropriate documentation of this disclosure to WHSON.

#### **Graduate Assistant GPA Requirements**

A graduate assistant is required to maintain a minimum quality point average of 3.0 each semester. Upon the recommendation of the appropriate departmental chairperson and academic dean, the student may be permitted to retain the assistantship on probation for one (1) semester should the average fall below the minimum requirement.

#### **Background Courses**

Additionally, a graduate student must achieve a grade of at least C on each course taken for nondegree purposes, that is, courses taken for background preparation, certification, or personal enrichment. A student will be required to repeat each nondegree course in which a grade of D, U, F, WF, or NF is assigned except that, with approval of the student's advisory committee, repetition of a course will not be required if a student's cumulative grade average on all courses (degree and nondegree) is at least B (3.0).

#### **Probation for Unsatisfactory Performance**

A graduate student is required to maintain a cumulative grade point average of at least "B" on all graduate courses taken as a graduate student. When a student's cumulative average on courses falls below 3.0, but not less than 2.00, the student will be placed in probationary Academic Standing. If the cumulative average falls below 2.00, the student will be dismissed.

Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester.

If the term average, on all courses presented as part of the hours required for graduation, during any semester is less than 2.00, the student's record will be reviewed and may be placed on probation.

#### **Dismissal for Unsatisfactory Performance:**

A graduate student will be dismissed from the graduate program if any one of the following conditions occurs:

- 1. The graduate student's current GPA or cumulative GPA falls below 2.0.
- 2. The student earns two Grades of "F",
- 3. Two consecutive semesters of "No Progress" grades assigned in thesis or dissertation courses.
- 4. Two "C" grades in the Ph.D. in Exceptional Learning Program.
- 5. One "F" grade in a course in the Ph.D. in Exceptional Learning Program.

- 6. Some graduate programs may have more stringent dismissal criteria. Students should confer with the department about such criteria.
- The graduate student fails to achieve Good Academic Standing by the end of the next enrolled semester following a semester that the graduate student was placed in probationary Academic Standing
- 8. The graduate student fails to meet program-specific requirements.
- 9. The graduate student does not successfully pass all examinations for admission to candidacy as required by their graduate program.

A graduate student who has been dismissed for unsatisfactory performance may request reinstatement through the appeal procedures in Tennessee Tech Policy #281 (Graduate Student Dismissal, Reinstatement, and Appeal Procedures).

https://tntech.policytech.com/

### **Permissible Loads**

Nine (9) credit hours in the fall or spring semester constitutes a full load for a graduate student. During the Summer Semester, a full load is six (6) hours taken in the 1st term, 2nd term, or a combination of both terms. The maximum permissible load is 16 credit hours per semester, inclusive totals of all credits earned at all institutions. Tennessee Tech Policy 274 (Graduate Assistantship), describes Graduate Course load limits for graduate assistants.

#### Permissible Loads of International Students

Each semester, except summer, an international graduate student must earn a minimum of nine (9) credit hours if a Master's student and six (6) credit hours if a PhD student. In the event that an international graduate student attending TTU on an F-1 Visa has not attended another F-1 certified school continuously for one academic year (30 weeks) the student will be required to enroll in the summer term as a full-time student (3 hours non-online coursework). However, if the student's department chair determines that appropriate courses are not available during the summer term, the student is not required to enroll as described above. Documentation stating the lack of appropriate course availability should be maintained in the student's immigration file. Tennessee Tech Policy 240 (Full Course of Study Requirements for International Students), describes Graduate Course load minimums for international graduate students. Tennessee Tech Policy 274 (Graduate Assistantship), describes Graduate Course limits for graduate assistants.

#### Permissible Loads of Graduate Assistants

To receive and maintain full-time graduate student status, a graduate assistant must meet the following registration requirements:

- For the summer semester, a Graduate Assistant must register for a minimum of one (1) credit hour but not more than twelve (12) graduate credit hours.
- For the fall and spring semesters, a Graduate Assistant must register for a minimum of six (6) credit hours but not more than twelve (12) graduate credit hours.

A graduate assistant is classified as an in-state resident ONLY while working as a graduate assistant. Classification status will be reverted back to out-of state when the assistantship ends.

### **Change of Major**

A student is admitted to a degree program only upon a declaration of a major area of study. The student may change their major area of study only if the department of the new major admits the student. The student must complete the Change of Major form

(www.tntech.edu/graduatestudies/forms) and forward to the College of Graduate Studies.

### **Definition of Credit Hour**

Tennessee Technological University is organized on the semester basis. When the term *hour* or *credit* is used, it refers to a semester-hour credit. One semester hour of credit requires one hour (55 minutes) of classroom or direct faculty instruction and a minimum of two hours out-of-class student work each week for approximately fifteen weeks.

Two or more hours of laboratory or studio work are required per hour of credit. An equivalent amount of work is required for practica and other academic activities that award credit. Summer, intersession or other alternate course formats require the equivalent amount of work per credit hour. Laboratory hours per credit are determined by the department or college. Semester credit hours earned in courses such as internships, research, theses, dissertations, study abroad, etc. are based on outcome expectations established by the academic program.

### **Course Repetition Policy**

A course repetition is required for all Graduate Courses in which a Grade of D, U, X, IF, F, FA, WF, or NF is earned. Both the original Grade and the Grade for the repetition will be counted in the Cumulative GPA.

Each graduate program in which Graduate Course repetition is permitted is limited to one (1) repetition per Graduate Course.

Unless defined otherwise by the program, a student must repeat any "C" grade earned beyond 6 credit hours of "C" on graduate level courses.

The cumulative Graduate Course repetition cannot exceed nine (9) Credit Hours in any graduate program.

Some Graduate Courses that share the same prefix and number are permitted to be taken more than once for credit and are not considered repetition due to the change in Graduate Course material. These types of Graduate Courses are noted in Course Descriptions.

### **Graduate Academic Fresh Start**

Graduate Academic Fresh Start is a plan of academic forgiveness provided for graduate students who have gained maturity in learning through extended experience outside higher education institutions. The Academic Fresh Start allows the calculation of the quality point average and credit hours toward graduation to be based only on work done after returning to college under the Academic Fresh Start program.

Individuals interested in requesting a Graduate Academic Fresh Start must submit a completed application (www.tntech.edu/graduatestudies/forms) to the College of Graduate Studies, including a written justfication for the request.

A Graduate Academic Fresh Start request is limited to situations where the individual wishes to apply to a graduate degree program other than the previously attempted coursework.

An individual seeking a Graduate Academic Fresh Start must:

- 1. Submit a completed change of major form to the College of Graduate Studies;
- 2. Submit all admission documents as required by Tennessee Tech Policy 270; and
- 3. Meet all the requirements for admission as determined by the program and the College of Graduate Studies.

The approval of a request for a Graduate Academic Fresh Start is at the discretion of the department and academic dean for the program to which the individual is applying and the Dean of the College of Graduate Studies.

An individual may receive only one Graduate Academic Fresh Start.

Previous coursework will not be used to satisfy the requirements of the new degree program.

### **Degree Requirements**

- General Degree Requirements
- Master's Degree Requirements
- Specialist in Education Degree Requirements
- Doctor of Philosophy Degree General Requirements

### **General Degree Requirements**

#### **Time Limits on Completion of Requirements**

A graduate student in a master's or specialist program must complete all degree requirements within six (6) consecutive years. A graduate student in a doctoral program must complete all requirements within eight (8) consecutive years. Time limits shall be computed from and including the first semester the student is admitted and enrolled in a degree program.

All Graduate Courses (both TTU and transfer credit) earned toward a graduate program must be taken within the applicable time limit. Courses that exceed the time limit must be validated for currency.

#### **Course Validation**

Tennessee Tech courses will be reviewed for current content at the home department where the course is offered. Courses taken outside of TTU will be reviewed for current content at the discretion of the department. The department will notify the College of Graduate Studies (via the Course Validation form) regarding the results of course content review and validation. Validated courses will not have to be reviewed again during the remaining time limit associated with the degree program.

#### **Advisory Committee**

A graduate student is required to have an advisory committee and is responsible for its formation and maintenance. Several programs have a designated "standing advisory committee." TTU Policy 271 provides details on the composition of the student's advisory committee. All requirements related to advisory committee responsibility as defined in Tennessee Tech Policy 282 (Graduate Faculty Appointment and Responsibilities Policy) must be met, except as provided in this section;

- Unless a specific graduate program has direct oversight by a standing advisory committee, all graduate degree programs must follow the committee formation requirements.
- In consultation with their advisor, a graduate student is required to establish their advisory committee and should submit the Advisory Committee Form to the College of Graduate Studies by the completion of 15 semester hours.
- The graduate student, in consultation with the departmental chairperson or graduate student's academic advisor, will determine the formation of the graduate student's advisory committee as part of the Program of Study.
- A minimum of three (3) advisory committee members is required for a master's or specialist degree program.
- A minimum of four (4) advisory committee members is required for a doctoral program in Education.
- A minimum of five (5) advisory committee member is required for a doctoral program in Engineering and Environmental Sciences.
- A graduate student's advisory committee members shall represent each of the areas in which the graduate student expects to study, with two (2) members having background in the major area. The graduate student must have at least one (1) committee member with adequate background and research interests in the area in which the student has proposed a research objective.
- A faculty member has the prerogative of accepting or relinquishing an appointment on a graduate student's advisory committee.
- Professionals who are not employed by Tennessee Tech may serve as a consultant on a graduate student's committee if appointed pursuant to Policy 282 (Graduate Faculty Appointment and Responsibilities).
- Approval requirements are as follows:
  - Three (3) positive votes, or seventy-five percent positive votes, whichever is greater, is required from the advisory committee members of a graduate student pursuing a master's or specialist degree.
  - A minimum of eighty percent positive votes is required from the advisory committee members of a graduate student pursuing a doctoral degree in Engineering or Environmental Sciences.
  - The advisory committee must vote unanimously positive for a graduate student pursuing a doctoral degree in Education.
  - In the event a student does not meet the required number of votes for approval, the student may appeal to the dean of the college in which they are enrolled. The college dean may assign a subcommittee to review the appeal. However, the decision from the dean of the college is final.
- The graduate student is responsible for submitting to the College of Graduate Studies any change in advisory committee.

#### **Program of Study**

Following admission into a graduate degree program, a graduate student will work with their academic advisor and committee members to determine the specific courses needed to fulfill their degree requirements.

#### **Comprehensive Examination**

At or near the completion of the course requirements for the graduate degree, each candidate must pass a comprehensive examination conducted by the candidate's graduate advisory committee. The examination may be oral or written or both. In the examination the student should demonstrate the breadth of knowledge

in the discipline, depth in specific areas, and the ability to integrate what has been learned. The following degree programs have a capstone course in which the final course completion is used in place of the comprehensive examination.

- Curriculum and Instruction, and Instructional Leadership (M.A. and Ed.S.) completion of CUED 6305 or CUED 6315 or CUED 7910
- Exercise Science and Wellness (M.A.) completion of EXPW 6550
- Electrical Engineering non-thesis completion of final project course, ECE 6970
- Masters of Business Administration completion of BMGT 6950
- Masters of Nursing completion of NURS 6990
- Masters of Professional Studies completion of PRST 6998
- Mechanical Engineering non-thesis completion of final project course ME 6900
- Professional Science Masters completion of ESS 6910

#### **Thesis/Dissertation Defense**

Serving as a comprehensive examination for students pursuing a thesis track master's or doctorate, a formal defense of the thesis or dissertation is required. Scheduling of the defense is the candidate's responsibility. The defense will be attended by the candidate's advisory committee and other designees as the individual degree defines.

#### **Application for Graduation**

In addition to satisfying all degree requirements, a candidate for a degree must file an Application for Graduation one semester prior to the semester in which the degree is expected to be conferred. The deadline for the filing of the application is posted on the College of Graduate Studies website each semester.

A graduate student shall be enrolled for a course approved by the graduate advisor during the term in which the degree is awarded <u>unless</u> all requirements have been completed by the last day to register for the term. Any prior courses with a grade of "I" do not count toward enrollment hours.

If a student applies for graduation but fails to satisfy graduation requirements, the student must reapply; this must be done by the date appearing in the online calendar.

All final degree requirements for graduation must be filed in the Graduate Studies Office no later than one (1) week prior to commencement, with the exception of the defense form and comprehensive exam form which are due three (3) weeks prior to commencement. Transcripts from other universities used as transfer credit on a program of study must be received no later than two (2) weeks after the commencement date.

The advisory committee approved copy of the thesis/dissertation must be submitted through the ETD Administrator (ProQuest) for format review no later than two (2) weeks prior to commencement. The final copy for publication through ProQuest must be submitted via the ETD Administrator one (1) week prior to commencement.

#### Commencement

There will not be a commencement ceremony for those graduating in August. Students who wish to participate will be allowed to return to the University for the December commencement ceremony. Exceptions may be made to this policy for extenuating circumstances. Students requesting to walk in a commencement other than the semester that the degree is conferred, are required to request prior-approval. An "Exception to Walk in Commencement" should be filed by the student (the form may be found

on the ONLINE Forms page of the Graduate College website) at least four weeks before the end of the semester. The completed form is to be electronically signed by the student's advisor, department chair, and the Dean of the College of Graduate Studies. Students may participate in only one (1) commencement ceremony for each degree earned at Tennessee Tech University.

### **Master's Degree General Requirements**

#### **Programs of Study**

Programs of study toward advanced degrees are less formal than for undergraduate degrees. Individual programs are planned for each student on the basis of educational background and career objective. Graduate degrees are not only awarded on the basis of completion of specific courses, but also on the basis of evidence of proficiency, scholarship, reasoning and investigation, and high attainments in the field of the student's specialization.

Although the maximum number of credits required in any degree program is determined in accordance with the formalized program approved for each student, in accordance with SACSCOC Standard 9.2, a candidate for the master's degree must complete at least 30 semester hours of credit for a master's degree. Program requirements for certificates, master's, post-master's certificate, specialist, and doctoral programs are defined by the college and department offering the program. Some college and department graduate programs may have requirements for continuation or graduation in addition to the minimum requirements set forth in this catalog. It is the graduate student's responsibility to be familiar with specific requirements found in their college and department program information.

At least seventy percent of the credit to be counted toward a master's degree must be at the 6000 level or above. In addition to the minimum course credits required for the advanced degree, other courses may be required as prerequisites depending upon the student's educational background, preparation, and objectives; however, credit earned below the 5000 level will not be counted toward a graduate degree. Courses listed as 4000 (5000) may be taken only at the 5000 level for graduate credit, and graduate credit is earned on the basis of additional work required by the instructor. Courses taken at the 4000 level may not later be taken at the 5000 level without special permission from the departmental chairperson, dean of the college, and the Associate Dean of Graduate Studies. Credit earned for one (1) degree program cannot be used in another degree program.

Any non-thesis program which is considered for approval by the Graduate School Executive Committee must demonstrate that it fosters independent learning.

A student desiring to pursue study for the master's degree in a field which may be different from the field of his undergraduate degree, and in which the necessary prerequisites are lacking, may do so by including in the program of study (as background courses) all the necessary undergraduate prerequisites for the area of specialization in addition to the required number of hours for the degree.

Each proposed program of study must be approved by the student's advisory committee, the departmental chairperson, and the Associate Dean of Graduate Studies.

#### Admission to Candidacy

Graduate students in a program leading to the master's degree, except those in Special Standing, should make application for admission to candidacy immediately following the completion of nine (9) semester hours of graduate credit. If application is not made by the time 15 hours are completed, the student may not

be permitted to register for subsequent work until the application is approved. The requirements which must be met before approval of admission to candidacy are:

- 1. the achievement of Full Standing.
- 2. the completion of at least nine (9) semester hours of graduate credit with a minimum quality point average of 3.0.
- 3. the written approval by the student's advisory committee.
- 4. the written approval of the chairperson of the major department.

5. successful completion of any examination which may be required by the student's department. If the student's application for admission to candidacy is not approved due to academic deficiencies, the student cannot continue graduate study with a major in any of the departments of the college in which he/she is studying.

#### **Credit Requirements**

As stated above, in accordance with SACSCOC Standard 9.2, a candidate for a master's degree must complete at least 30 semester hours of credit for the master's degree.

At least 21 semester credits including the thesis shall be required at the 6000 level or above in a 30-hour program for the master's degree; at least 23 semester credits at the 6000 level or above shall be required in a 33-hour master's program. The remainder of the courses in the program of study may be at the 5000 level; however, not more than 30% of the courses in a student's program of study may be in dual numbered 4000 (5000) courses. Courses below the 5000 level will not be counted toward a graduate degree; and, although they may appear on the written program as background requirements, these courses are not figured into degree requirements.

#### **Requirements for a Major**

A student's program of study must reflect a reasonable concentration in related or interrelated courses. A department may require that all of the courses in a student's program be taken in that department; or it may require that a major portion be taken in that department and allow for one or more minor areas of collateral study in other departments.

#### Transfer and Other Credit

Students who request to transfer graduate course credits from an accredited institution to Tennessee Tech must request that the institution send official transcripts directly to TTU. Official transcripts must include all grades.

The program department will determine, at its sole discretion, what transfer coursework is eligible for transfer to the student's program of study.

The coursework transferred or accepted for credit toward a graduate degree must have a minimum grade of "B" in each course.

For all graduate degree programs, the department will determine, in its sole discretion, the number of transfer credits it will accept, provided the department's decision is in compliance with SACSCOC Accreditation Standard 3.6.3.

Tennessee Tech will exclude grades earned in transferred courses in the calculation of grade point averages.

Tennessee Tech Policy #283 (General Graduate Transfer Credit Requirements) provides additional information on Transfer Credit.

#### Thesis

When a thesis is required in a student's program of study, no fewer than six (6) credit hours for Graduate Course 6990 (Master's thesis) will be counted towards the degree. Thesis (and dissertation) credit is made available in increments of 3, 6, or 9 semester hours during any given semester (and in some departments as one [1] hour credit). A graduate student shall be required to be registered for at least one (1) course appropriate to the student's degree objective in order to have access to computer equipment, laboratories, library, and other university facilities and resources even if the student is working in absentia on research and thesis. A graduate student shall be enrolled during the term in which the degree is awarded. When a student makes satisfactory progress in research and thesis, a grade of SP (Satisfactory Progress) will be assigned for credit earned. When satisfactory progress is not achieved, a grade of NP (No Progress) will be assigned; however, a grade of NP shall not be counted as having satisfied either program or degree requirements, and the student must register again for additional thesis (or dissertation) credit. Only grades of SP and NP shall be used to indicate a student's progress in thesis or dissertation credit.

#### Thesis Preparation:

The College of Graduate Studies requires all graduate students to follow the "Guide to the Preparation of Theses and Dissertations" that is published on the College website. The College of Graduate Studies will review the graduate student's thesis for formatting to ensure the thesis adheres to the Guide. The College will not review the paper's content, spelling, or accuracy of the citation.

Once the graduate student's advisory committee certificate approval page has been submitted to the College of Graduate Studies, the graduate student must submit the thesis electronically (through eTD ProQuest) to the Graduate School at least two (2) weeks prior to the close of the semester in which the degree is to be conferred (or at an earlier date if such is specified in the University calendar). Refer to the College of Graduate Studies website regarding requirements for electronic submission. Any thesis/dissertation that does meet the required standards will be returned to the student who will have one (1) week maximum to make corrections and resubmit. Failure to do so will result in ineligibility for graduation. All theses/dissertations that meet the required standards will be forwarded on for publication and the student will be eligible for graduation.

The graduate student's failure to complete the thesis review and formatting process with the College by the posted deadline on the College calendar, will result in the graduate student's ineligibility to graduate.

#### Thesis Defense:

A graduate student pursuing a thesis track master's will be required to participate in a formal defense of his/her thesis.

Prior to scheduling the thesis defense, the graduate student must submit the thesis certificate of approval page to the College of Graduate Studies for format review and approval.

The graduate student is responsible for scheduling his/her thesis defense with his/her advisory committee to allow enough time to submit the defense results to the College of Graduate Studies by the deadline established by the College. Failure to defend the thesis by the deadline will prevent graduation.

A graduate student's thesis defense is open to the public.

All the graduate student's advisory committee members are required to attend the thesis or dissertation defense.

Failure to submit the graduate student's thesis defense results to the College of Graduate Studies by the posted deadline on the College of Graduate Studies calendar will result in the graduate student's ineligibility to graduate.

#### **Non-thesis**

Most non-thesis graduate programs and some thesis graduate programs require that the graduate student successfully pass a Comprehensive Exam conducted by his/her advisory committee at or near the completion of his/her graduate program. Failure to submit the Comprehensive Exam results by the posted deadline on the College of Graduate Studies calendar will result in the graduate student's ineligibility to graduate.

Several non-thesis graduate programs have a capstone course or project course in which the final course completion is used in place of the Comprehensive Examination.

Any non-thesis program that comes before the Graduate School Executive Committee for consideration for approval must foster independent learning.

#### Second Master's Degree

A student holding an earned master's degree from Tennessee Tech, or an accredited institution may qualify for a second master's degree by completion of graduate work approved by the graduate student's advisory committee, provided:

1. If the graduate student has previously earned a master's degree at Tennessee Tech, then a minimum of 21 semester hours taken at Tennessee Tech must be completed for a thesis second master's degree or 24 semester hours if non-thesis.

2. If the graduate student has not previously earned a master's degree at Tennessee Tech, a minimum of 24 semester hours taken at Tennessee Tech must be completed for a thesis second master's degree or 27 semester hours if non-thesis.

3. The graduate student successfully completes all requirements prescribed in the specified graduate program.

Apply Now!

## College of Engineering - Master of Science Degree Requirements

A master's degree is a certification that the recipient is able to read with understanding and apply with profit the literature of his/her field. The general requirements for an MS degree are the same for all departments: development and completion of a program of study which includes a minimum of 24 semester hours of course credits and at least six (6) semester hours of thesis. All pertinent regulations of the Graduate School apply.

Listed below are College of Engineering regulations that are clarifications of, or additions to, those promulgated by the Graduate School. Additional information can be found in the listings of the individual departments.

#### Advisory Committee

Every master's student is required to have an advisory committee having a minimum of three (3) members. The student is responsible for identifying, in consultation with the departmental chairperson, a faculty member who is willing to chair his/her advisory committee. In consultation with the chairperson of the committee, the student is responsible for identifying at least two (2) other faculty members who are willing to serve on his/her committee. Advisory committees may include more than three (3) members. If desired or required, two (2) members of the committee may serve as co-chairs of the committee rather than the committee having one (1) chair. If a student is not able to identify a sufficient number of faculty who are suitable and willing to serve on his/her advisory committee, the student will be advised by the departmental chairperson that he/she should either change his/her area of research interests to more closely match those of the available faculty or consider selecting another major. Failure to be able to form a committee is cause for transfer to non-degree status. Further regulations concerning the membership, appointment and responsibilities of a student's advisory committee are given in other sections of the catalog, including the sections on "Organization of the Graduate School" and "Degree Requirements."

#### Thesis/Comprehensive Examination

A thesis is required for all MS degrees in the college of engineering, except the MS in Engineering Management. All five MS degrees in the college also offer a non-thesis option.

A candidate for a master's degree must submit a thesis in writing and orally present and defend the thesis to his/her advisory committee. The meeting at which the thesis presentation and defense occurs also serves as the time for the student's final oral comprehensive examination over any or all aspects of the student's master's program. On the form on which the chairperson of the student's advisory committee reports the results of the thesis defense, the chairperson also reports the results of the comprehensive examination, including a brief synopsis of the examination.

#### Limitations on Graduate Assistantships

A master's student may receive support during the first two (2) calendar years after initial enrollment. This time limitation does not imply a student will receive support during his/her first two (2) years. Whether or not a student receives support depends on the availability of funds and the suitability of the student to carry out the responsibilities associated with the support. Support beyond the stated limits, regardless of source of funding in the College of Engineering, requires justification, which must be reviewed and approved by the Associate Dean of Engineering Research an Innovation prior to the implementation. (See College of Engineering website for the exception request form.)

### **Specialist in Education Degree General Requirements**

#### Specialist in Education Degree

The program of study leading to the Specialist in Education degree (Ed. S.) will be designed for each student so as to achieve proper balance between the experiences required for training as a specialist and those required for development as a professional educator working with other educators. The program will therefore be tailored to serve the needs and objectives of the individual student.

If a student lacks not more than 12 semester credits on the master's degree, the student may accumulate a maximum of 9 semester credits to be counted toward the Ed. S. degree provided the student (i) has been approved for tentative Ed. S. admission by the Graduate School, (ii) has a departmentally approved program of study, and (iii) fulfills all requirements for the master's degree within two (2) consecutive semesters.

A minimum of 30 semester hours beyond the master's degree, in approved upper-level courses, will be required in the Ed. S. program. At least 15 semester hours must be taken in courses numbered at the 7000 level and no course below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Associate Dean of the College of Graduate Studies.

Although a thesis is not required in the specialist program, the student is expected to become well acquainted with research in the field of specialization and to demonstrate competence in research methodology. In order to satisfy these expectations, the student must earn at least three (3) semester hours in courses of a laboratory and/or field experience nature and three (3) semester hours in an independent study project.

#### Admission To Candidacy

Graduate students in a program leading to the Specialist in Education degree should make application for admission to candidacy immediately following the completion of fifteen (15) semester hours of graduate credit. If application is not made by the time 15 hours are completed, the student may not be permitted to register for subsequent work until the application is approved. The requirements which must be met before approval of admission to candidacy are:

#### The achievement of Full Standing

- The completion of at least fifteen (15) semester hours of graduate credit with a minimum quality point average of 3.0.
- The written approval by the student's advisory committee.
- The written approval of the chairperson of the major department.
- Successful completion of any examination which may be required by the student's department for admission to candidacy.

If the student's application for admission to candidacy is not approved due to academic deficiencies, the student cannot continue graduate study with a major in any of the departments of the college in which he/she is studying.

Students in the counseling program within the Department of Counseling and Psychology will take the national Counselor Preparation Comprehensive Examination (CPCE) during their first semester of study. This examination will be diagnostic in nature and must be passed to graduate from a counseling Ed.S. program.

Final clearance for candidacy will be achieved only upon recommendation by the department in which the student is majoring, subject to approval of the Associate Dean of the College of Graduate Studies.

Prior to admission to candidacy the student may be required to remove certain deficiencies resulting from insufficient background preparation for the specific field or from the absence of certain prerequisite courses essential in preparation for pursuing the proposed specialist program. The candidacy step should not be confused with the final comprehensive examination which is required of all degree candidates and which has been explained previously in the general regulations section of this catalog.

#### **Transfer And Other Credit**

Each candidate for the Ed.S. degree must complete a minimum of 24 semester hours credit at Tennessee Technological University.

A maximum of six (6) semester hours of transferred work with a minimum grade of "B" in each course may be included in the student's program of study. Such work must have been completed at an accredited institution which offers the Master's, Specialist's and/or Doctor's Degree (for a list of accrediting agencies recognized, refer to the U.S. Department of Education website). Credit earned through correspondence or extension courses will not be accepted toward the Ed.S. Degree.

#### **Department of Curriculum & Instruction**

A maximum of twelve (12) semester hours of transferred work with a minimum grade of "B" in each course may be included in the student's program of study with approval from advisor, department chair, and dean. Such work must have been completed at an accredited institution which offers the Master's, Specialist's and/or Doctoral Degree. Credit earned through correspondence or extension courses will not be accepted toward the M.A. Degree.

Credit by special examination is not permitted at the graduate level; however, special examinations to determine competency or proficiency in courses where credit has already been earned but is currently outof-date may be permitted during a period of up to three (3) consecutive semesters immediately following the six-year time limitation. Special examinations may also be permitted to validate transfer credit, but the credit must be originally earned as graduate credit and not undergraduate credit.

#### **Other Regulations**

In addition to these specific requirements for the Specialist in Education Degree, all candidates will be expected to comply with general regulations of the Graduate School. (See Regulations and Degree Requirements in previous sections of this catalog.)

### College of Engineering - Doctor of Philosophy Degree Requirements

The Ph.D. is a research degree. The minimum requirements for a Ph.D. degree in the College of Engineering stated below are the same for all departments. Each department may include additional degree requirements for students pursuing specialization in that department.

#### Students Admitted with a Master's Degree

- 1. A minimum of 48 credits of course work and doctoral research and dissertation as follows:
  - A. A minimum of eighteen (18) credit hours of course work beyond the master's degree acceptable to the student's advisory committee. Additional six (6) credit hours of either graduate level course work or research experience as per the policy of the student's major department. No 5000-level courses are to be used to meet the minimum requirements of course work.
  - B. A minimum of twenty four (24) credit hours of doctoral research and dissertation built upon the student's course of study and making a significant contribution to the state of knowledge or to the art of the engineering profession, is required; not more than nine (9) credit hours may be earned in a particular semester.

- 2. Residence of four (4) semesters beyond the master's degree, with at least two (2) semesters in continuous residence, is required. All requirements, including the dissertation, must be completed within a period of eight (8) consecutive years.
- 3. Maintenance of a minimum quality point average of 3.0 and adherence to the general regulations of the College of Graduate Studies are expected.

All students in the program must follow a plan of study and research developed in conjunction with an advisory committee, satisfactorily complete a comprehensive examination, achieve candidacy, and satisfactorily defend their dissertation.

#### Students Admitted Directly from the Bachelor's Degree into the Ph.D. Degree Program

A student admitted with a bachelor's degree on exceptional basis must successfully complete a qualifying examination based mostly on undergraduate materials before the end of the second semester of enrollment. Students with a Bachelor of Science (B.S.) degree from ABET-accredited programs are exempted from this examination. Other students without such a degree, or M.S. students without an ABET-accredited B.S. degree, switching to direct Ph.D. will have to take a qualifying exam through a formal process established by the department. The process should include at a minimum an examination of the student's fundamental knowledge managed by the Graduate Committee of the department.

Based on the student's performance on the qualifying examination, the student may be (i) permitted to continue in the doctoral program, or (ii) advised to transfer to an M.S. degree program in an appropriate discipline in the college, or (iii) recommended for termination from the graduate program of the college.

If permitted to continue in the doctoral program, the student, as described elsewhere in the catalog, will select a research advisor, form an advisory committee, and submit a program of study satisfying the following requirements.

The program of study should have a minimum total of seventy two (72) credit hours of academic work, consisting of course work and dissertation work, beyond baccalaureate work, subject to the following:

- The program of study should include a minimum of forty two (42) credit hours of appropriate graduate level course work consisting of a maximum of nine (9) credit hours at the 5000-level, acceptable to the student's advisory committee.
- It should also include an additional six (6) credit hours of either graduate level course work or research experience as per the policy of the student's major department.
- A minimum of 24 credit hours of doctoral research and dissertation, built upon the student's course of study and making significant contribution to the state of knowledge and the art of the engineering profession, is required; no more than nine (9) credit hours may be earned in a particular semester.

## Students Admitted Directly from the Bachelor's Degree into the Ph.D. Program Earning a Non-thesis M.S. en route

All conditions stated above for the students admitted directly into the Ph.D. program apply. In addition:

Nine (9) credit hours will count toward the non-thesis M.S. degree and toward the Ph.D. degree. If the departmental non-thesis M.S. requires a three (3) credit hour non-thesis project course, those three (3) credit hours can be counted as three (3) credit hours of dissertation research toward the Ph.D. degree. Six (6) credit hours of M.S. coursework can be counted toward the Ph.D. coursework. If no project course is required for the non-thesis M.S., then nine (9) credit hours of M.S. coursework can be counted toward the Ph.D.

#### Limitation on Graduate Assistantships

It is expected that a full-time, post master's Ph.D. Engineering student should be able to achieve candidacy within the first three (3) calendar years after enrollment, and a direct admit Ph.D. Engineering student after four (4) calendar years. If candidacy is not achieved within the aforementioned periods, a student must request and receive approval for an extension of assistantship following the College of Engineering's established procedure. An extension may be granted by the Associate Dean of Engineering for Research and Innovation. This limitation is regardless of student funding or the source of support for the student.

### **Doctor of Philosophy Degree General Requirements**

#### Advisory Committee Formation

Each Ph.D. student's advisory committee is determined by the department in which the degree is offered. The committee will have a minimum number of voting members from predetermined departments or fields. The student is responsible for identifying, in consultation with the departmental chairperson, or director and dean or associate dean of the respective college, a faculty member who is willing to chair his/her advisory committee. The chairperson of the committee and the student are responsible for identifying the other faculty members required/desired and determining if they are willing to serve. Advisory committees are permitted to have more than the minimum number of members required. If necessary, the advisory committee may be co-chaired. Changes in a Ph.D. advisory committee must adhere to all policies and procedures governing graduate study at the University, as contained in the Graduate Catalog and administered by the College of Graduate Studies.

If a student is not able to identify a sufficient number and type of faculty who are suitable and willing to serve on his/her advisory committee, the student will be advised by the Dean that he/she should either change his/her area of research interest to more closely match those of the available faculty or consider selecting another major. Failure to be able to form a committee is a cause for transfer to non-degree status. Further regulations concerning the membership, appointment, and responsibilities of the advisory committee are given in other sections of the catalog, and in College of Graduate Studies Policy 282.

#### **Program of Study**

Programs of study toward advanced degrees are less formal than for undergraduate degrees. Individual programs are created for each student on the basis of educational background and career objective. Graduate degrees are not only awarded on the basis of completion of specific courses, but also on the basis of evidence of proficiency, scholarship, reasoning and investigation, and high attainments in the field of the student's specialization.

Each proposed program of study must be approved by the student's advisory committee, the departmental chairperson or program director, the dean or associate dean of the respective college, and the associate dean of the College of Graduate Studies.

There will be a hold placed on a student's registration if his/her Program of Study form has not been filed in the College of Graduate Studies office by the semester in which 15 credit hours will be earned.

#### **Comprehensive Examination**

Before requesting that his or her major professor schedule a Comprehensive Examination for Candidacy, a student must:

- have achieved Full Standing in the program; and
- have completed approximately 80% of the course work in his/her Program of Study.

The method of testing may consist of written, oral, and/or presentation components.

Details of this examination, including format, content, method of evaluation, timing, and deadlines will be determined by the college/departmental regulations. Successful completion of the Comprehensive Exam for Candidacy advances the student to official doctoral candidate status.

#### Admission to Candidacy

Admission to candidacy is granted when a student successfully completes the exam mentioned above. The advisory committee chairperson will complete an Admission to Candidacy Comprehensive Exam form, which will be signed by the student's advisory committee, the departmental chairperson or program director, the dean or associate dean of the respective college, and then sent to the associate dean of the College of Graduate Studies.

The candidate will then continue his/her research and prepare the doctoral dissertation and defense to fulfill all degree requirements.

#### **Dissertation & Defense**

Dissertation credit is offered in increments of 3, 6, or 9 credit hours during any given semester (and in some departments as one (1) credit hour). A graduate student shall be required to be registered for at least one (1) course appropriate to the student's degree objective in order to have access to computer equipment, laboratories, library, and other university facilities and resources even if the student is working in absentia on research and dissertation. A graduate student shall be enrolled during the term in which the degree is awarded. When a student makes satisfactory progress in research and dissertation, a grade of SP (Satisfactory Progress) will be assigned for credit earned. When satisfactory progress is not achieved, a grade of NP (No Progress) will be assigned; however, a grade of NP shall not be counted as having satisfied either program or degree requirements, and the student must register again for additional dissertation credit. Only grades of SP and NP shall be used to indicate a student's progress in dissertation credit.

The graduate student is expected to consult frequently with the major advisor during dissertation preparation. At the time the final rough draft has been completed, the dissertation should be in electronic form. The only content revisions the student should make are those suggested by the advisory committee. The student should allow ample time for the committee to review the dissertation, usually no less than two (2) weeks.

The College of Graduate Studies has published the Guide to the Preparation of Theses and Dissertations which serves as the official manual for all theses or dissertations. Also provided is a "Thesis/Dissertation Checklist" which outlines basic formatting requirements.

Although examples in this guide are recommended for making footnotes, endnotes, and giving bibliographical references, each department is encouraged to use those systems of citations that are most commonly used in its own discipline. Any other departure from this manual must have the prior approval of the associate dean of the College of Graduate Studies. The guide is on the College of Graduate Studies website.

A student must submit the final, error-free copy of his/her dissertation electronically (through eTD ProQuest) to the College of Graduate Studies by the date specified on their website's calendar of deadlines. Please see Graduate Studies' personnel regarding requirements for electronic submission or deadline date questions. Any dissertation that does not meet the required standards will be returned to the student, who will then be required to complete requested revisions and resubmit new versions until all required corrections are made. Failure to do so will result in ineligibility for graduation. All dissertations that meet the required standards will be forwarded on for publication, and the students will be eligible for graduation.

#### **Transfer and Other Credit**

For all graduate degree programs, the department will determine, at its sole discretion, the number of transfer credits it will accept, provided the department's decision is in compliance with SACSCOC Accreditation Standard 3.6.3 and any other applicable accreditation requirements. Accreditation Standard 3.6.3 states, "At least one-third of credits toward a graduate or a post-baccalaureate professional degree are earned through instruction offered by the institution awarding the degree." For a list of accrediting agencies recognized, refer to the U.S. Department of Education website.

Credit by special examination is not permitted at the graduate level; however, special examinations to determine competency or proficiency in courses where credit has already been earned but is currently outof-date may be permitted during a period of up to three (3) consecutive semesters immediately following the eight-year time limitation. Special examinations may also be permitted to validate transfer credit, but the credit must be originally earned as graduate credit and not undergraduate credit.

Graduate credit will not be given for correspondence courses.

#### Graduation / Hooding

No doctoral degree candidate is permitted to participate in commencement until all requirements for the degree are successfully completed.

### **Student Complaint Procedures**

Students or prospective students who wish to file a complaint related to accreditation or regarding violations of state law not resolved at the institution may do so by following the Student Complaint Policy and Procedure at https://www.tntech.edu/studentaffairs/stucomplaint/.

Complaints regarding accreditation can also be made by contacting the Southern Association of Colleges and Schools Commission on Colleges, 1866 Southern Lane, Decatur, GA 30033-4097, telephone: 404-679-4500 (www.sacscoc.org).

Complaints of fraud, waste or abuse may be made by email at reportfraud@tbr.edu or by calling the Tennessee Comptroller's Hotline for Fraud, Waste and Abuse at 1-800-232-5454.

### **University Policies**

#### Student Responsibility

All students are required to have knowledge of rights, responsibilities, and regulations pertaining to campus life which are published in the *Student Handbook*. Each student is responsible for maintaining

communication with the University, by keeping officials informed at all times of current address (including zip code) and telephone number.

Students are responsible for the proper completion of their academic programs; for familiarity with requirements of the University Catalog; for maintaining the grade average required; and for meeting all other degree requirements. A student may receive counsel from an academic advisor; however, the final responsibility remains that of the student.

The course offerings and requirements of the institution are continually under examination and revision. This catalog (bulletin) presents the offerings and requirements in effect at the time of publication, but is no guarantee that they will not be changed or revoked. However, adequate and reasonable notice will be given to students affected by any changes. This catalog (bulletin) is not intended to state contractual terms and does not constitute a contract between the student and the institution. The University reserves the right to make changes in rules and regulations concerning admission, student conduct, degree requirements, and course descriptions subject to the concurrence and approval of its governing authorities.

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

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

The regulations and policies established by the Graduate Studies Executive Committee are intended to provide guidance to faculty and students. Should an individual believe that there is sufficient justification for an exception to any requirement, written requests (with any suitable statements or other supporting documents) may be submitted to the Associate Dean of Graduate Studies for consideration by the committee. The committee has regular meetings three times during each semester of the academic year and once during the summer.

The graduate catalog is a supplement to the undergraduate catalog (general catalog) and is published to provide information for graduate students, prospective graduate students, and members of the faculty. Students enrolling for graduate study at Tennessee Technological University are responsible not only to the provisions of the graduate catalog but also to the undergraduate catalog. Whenever a student's welfare or progress may be impeded or impaired by any conflict of information presented in the two (2) publications, resolution of such conflict will be determined by the appropriate standing committees of the University. When a person is admitted to graduate study, it is presumed that person accepts responsibility for learning and observing the regulations and policies of the University; therefore, ignorance of a regulation or policy does not constitute a basis for waiving that regulation or policy. Graduate students are subject to the usual procedures and regulations of the University as listed in the undergraduate catalog, except as they apply to undergraduate students only.

Tennessee Technological University is an Equal Opportunity/Affirmative Action institution and is in compliance with Titles VI and VII of the Civil Rights Act of 1974, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1974, the Rehabilitation Act of 1973, Vietnam Era Veterans Readjustment Act of 1974, and The Americans With Disabilities Act of 1990. The University is nondiscriminatory on the basis of age, race, color, religion, sex, national origin, disability status, or status as a disabled veteran or veteran of the Vietnam Era.

#### **Disability Accommodation**

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. For details, view the Tennessee Tech's Policy 340 – Services for Students with Disabilities at <u>Policy</u> <u>Central</u>.

#### **Official Notice to Report**

A notice to report to any administrative office of the University takes precedence over all noninstructional activities, and must be answered immediately or, if received during a class, as soon as the class is over. Failure to respond to such a notice will require satisfactory explanation to the Administrative Council before the student is allowed to continue in residence.

#### **Student Academic Misconduct**

Maintaining high standards of academic integrity in every class at Tennessee Tech is critical to the reputation of Tennessee Tech, its students, alumni, and the employers of Tennessee Tech graduates. The Student Academic Misconduct Policy describes the definitions of academic misconduct and policies and procedures for addressing Academic Misconduct at Tennessee Tech. For details, view the Tennessee Tech's Policy 217 – Student Academic Misconduct at <u>Policy Central</u>.

#### **Grade Appeal Procedure**

The university grade appeal procedure is outlined in Tennessee Tech Policy 218.

#### **Judiciary Procedures**

Judiciary procedures at the University do not constitute legal actions, and the decisions are not to be equated with verdicts reached by courts of law. These procedures simply involve the fact-finding and decision-making processes of an educational institution.

Detailed procedures for the disciplinary system are printed in the 'Disciplinary System Manual." Copies of the manual are located in the Office of Student Affairs.

#### **Unofficial Withdrawal**

Tennessee Technological University will, through forms of documentation deemed acceptable by federal guidelines, determine the date of unofficial withdrawal for any student who leaves the University without officially withdrawing. In compliance with federal guidelines this date will be used to calculate the University's financial liability to the federal government in the recovery of funds.

#### **Official Withdrawal From The University**

Students who desire to withdraw from the University before the end of an academic term must make formal application for withdrawal either in the Office of Student Affairs at the time of withdrawal. Those who complete withdrawal procedures will receive a grade of W in courses they are passing and a grade of WF in courses they are failing if official withdrawal is after the last date for dropping a course. Refunds which may

be due will depend upon the date of formal withdrawal. Applications for withdrawal will not be considered if received after final examinations begin in any term.

#### **Privacy Rights Of Students**

On May 20, 1975, Tennessee Tech approved a statement of policy that includes provisions for the release of information about students and the rights of students and others to have access to Tech's education records. The complete policy statement of "Privacy Rights of Students" is available in the Records and Registration Office and in the Student Handbook.

A student may obtain a transcript of his or her academic records by making a written request to the Office of Records and Registration, Tennessee Technological University, P. O. Box 5097, Cookeville, TN 38505, fax (931) 372-6111.

#### **Drug Free Policy**

The Tennessee Technological University community (Faculty, Staff, and Students) complies with the policies and penalties relative to controlled substances (illicit drugs) and alcohol, as required by the Drug Free Workplace Act of 1988 and the Drug Free Schools and Communities Act Amendments of 1989. As an employee and/or student at Tennessee Technological University, you are required to be knowledgeable of and comply with the Drug Free Campus/Workplace Policy, the applicable provisions of which are summarized below:

It is the policy of this institution that the unlawful manufacture, distribution, possession, use, or abuse of alcohol and/or illicit drugs on the Tennessee Technological University campus or on property owned or controlled by the University is strictly prohibited. All categories of employees and students are subject to this policy and to applicable federal, state, and local laws related to this matter. Additionally, any violation of this policy will result in disciplinary actions as set forth in the applicable sections of this policy.

#### No Smoking & Tobacco-Free Campus Policy

Tennessee Tech University (TTU) agrees with the U.S. Surgeon General that tobacco use in any form, active and/or passive, is a significant health hazard. TTU further recognizes that environmental tobacco smoke has been classified as a Class-A carcinogen, and that the State of Tennessee is actively dissuading its employees from smoking. TTU supports the American College Health Association Position Statement on Tobacco on College and University Campuses (www.acha.org, Feb 2005). Due to these health risks, TTU has adopted a NO SMOKING & TOBACCO-FREE CAMPUS policy.

**7.1 Policy** - Effective January 1, 2010, TTU is a No Smoking & Tobacco-Free Campus, with all smoking ('herbal' and tobacco) and all other tobacco usage permitted only in private vehicles. This policy applies to all university buildings and grounds; TTU-affiliated off-campus locations and clinics; and any buildings or properties owned, leased or rented by TTU in all other areas. Smoking and tobacco use continues to be prohibited in all state vehicles. This No Smoking & Tobacco-free Campus Policy is in effect 24 hours a day year-round.

**Background** - The University promotes a healthy, sanitary environment free from all smoke ('herbal' and tobacco) and tobacco-related debris. The TTU community acknowledges that long-term health hazards may accrue to people who use tobacco products or who are subjected to second-hand smoke. The failure to address the use of tobacco products on campus would constitute a violation of the Americans with Disabilities Act, the Vocational Rehabilitation Act and Tennessee law.

**Support** - Understanding the addictive nature of tobacco products, TTU will make every effort to assist those who may wish to stop using tobacco. TTU Human Resources, Health Services and
Counseling Center offer current information about available resources. The State offers toll-free assistance at 1-800-QuitNow (1-800-784-8669). The American Cancer Society offers free counsel to individuals wanting to quit.

**7.2 Compliance and Enforcement** - It is the responsibility of all members of the TTU community and visitors to comply with this no smoking and tobacco-free campus policy. 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.

#### **Inclement Weather Policy**

All Tennessee Technological University offices will remain in operation during inclement weather to ensure continuity of services and to meet the needs of our students. In extreme weather conditions, classes and exams on campus and at off-campus locations may be rescheduled or cancelled while the university is open.

In accordance with TTU policy, faculty, administrators and staff of TTU are expected to make every reasonable effort to be at their work assignment on time, taking into consideration the personal risk involved. Administrators or staff employees who anticipate arriving late, or not arriving at work at all, should notify their immediate supervisor of this fact as soon as possible and request annual leave for the period of absence. If faculty members must be absent from assigned classes due to inclement weather, it is their responsibility to notify the appropriate chairperson and/or dean.

#### **Off-Campus Classes**

**28.1.2** The decision to cancel off-campus classes will be made by the Vice President for Academic Affairs in close consultation with the Vice President of Extended Programs and Regional Development and the coordinators of the off-campus centers. The information will then be disseminated by the coordinators as quickly as possible by whatever means are available in the vicinity of the affected center.

#### For Employees / Working Hours

At times it may be necessary for the President to declare specific hours as emergency closing as the result of inclement weather or other emergency situations. In such cases, regular full-time and part-time employees on the active payroll who are scheduled to work during the declared times of closing will be granted time off from work with pay. Employees who are not scheduled to work will not be paid for the emergency closing. Clerical and support personnel required to work to keep essential services functioning will receive extra compensation. Administrative personnel required to work will receive equal time off for hours worked.

#### Academic Work

If classes are canceled due to inclement weather, missed classes should be made up in a manner chosen by the individual faculty member involved. If classes are not cancelled despite inclement weather, students are responsible for any academic work they miss as a result of inclement weather. It is the individual student's responsibility to take the initiative in making up any missed work, including but not limited to examinations, presentations and projects, and it is the faculty member's responsibility to provide the student with a reasonable opportunity to make up missed work, including but not limited to examinations, presentations and projects.

#### **Delays & Early Closings**

The President of the University may choose a delayed opening or early closing.

In the event of the delayed opening, all faculty and staff are expected to report to their specific work location by the set opening time. Students are expected to report to regularly scheduled class only if there are 30 or more minutes remaining in the session. (Ex.: If the delayed opening is set for 10:00 a.m., students who have classes from 9:30 a.m. to 10:50 a.m. should report to that class at 10:00 a.m.). All classes scheduled prior to the delayed opening time and those that have less than 30 minutes remaining after the set opening time are cancelled for the day.

When time is announced for an early closing, it applies to all classes that begin on or after that hour. Ex. "Classes cancelled at 3 p.m." means all classes starting at 3 p.m. or later are cancelled. Classes that started before 3 p.m. will meet.

#### **Procedures for Canceling Classes**

In those instances when weather conditions require a decision by the President of the University to authorize canceling classes, delaying the start of classes or suspending selected activities, the following procedures will be in effect:

**28.2.1** The Director of Facilities and Business Services and Director of Safety and Environmental Services will monitor official weather reports, contact appropriate state, county and local Public Safety Officials and check local roads for hazardous driving conditions. They will review campus roads, walkways and parking lot conditions. The Director of Facilities and Business Services will advise the Vice President for Business and Fiscal Affairs of the findings. After receiving this information, the Vice President for Business and Fiscal Affairs will inform the Vice President for Academic Affairs, who will consult with the other vice presidents and recommend to the President whether the University should cancel classes or declare an emergency closing. If the Vice President for Business and Fiscal Affairs and Business Services and Director of Safety and Environmental Services will contact the Vice President for Academic Affairs.

Once the decision is made to cancel classes or close offices and facilities or buildings on campus or at extended education sites, the President or Vice President for Academic Affairs will notify:

- Associate Vice President for Communications and Marketing (or representative of that office)
- TTU Police
- University Vice Presidents (Each University Vice President will be responsible for notifying the appropriate personnel in the division).

The Office of Communications and Marketing will prepare an official statement and notify the campus community and public through the following ways:

- University website homepage
- Broadcast e-mail to students, faculty and staff
- Text alert (written by OCM, distributed by University Police)
- Facebook and other social media
- Switchboard operator
- Local media (including Channel 7)
- Metro Nashville network TV stations and select radio stations
- Upper Cumberland Radio
- Campus media (Oracle/WTTU)
- Metro Knoxville network TV stations and select radio stations

Many media outlets require private passwords or codes for weather notifications. These codes will be kept confidential and maintained annually by the Office of Communications and Marketing. Access to a listing of codes will be limited to designated OCM staff members and the Vice President for University Advancement. No notice will be sent to media if the University continues to operate on a normal schedule. (The University homepage and social media may be used to communicate to students, parents, faculty, staff and administrators that a normal schedule will be followed).

## **Cooperative Education**

## **Cooperative Education**

#### **Office of Career Development**

Cooperative Education is a voluntary, independent education program available for all undergraduate and graduate students in any academic area. Work experience is gained with an employer who offers learning opportunities related to a student's academic discipline. The program provides careful supervision with timely evaluation of performance, attitude, and ability of the student on the job. The goal is to help students grow and improve their capabilities.

The co-op program allows a student to obtain on-the-job learning experiences that can increase motivational and conceptual understanding in the classroom. It can provide a realistic evaluation of your career choice along with the opportunity to earn a supplemental income to aid with college expenses.

#### Eligibility

Students must meet the following requirements:

- Register with the Career Development Office by establishing your on-line account.
- Minimum 2.5 GPA (GPA must be maintained while participating in the program).
- Full-time student status.
- Must complete one (1) semester at TTU prior to completing a co-op application.
- Transfer students from another college or university must complete two (2) full semesters at TTU prior to completing a co-op application.
- Attend an orientation session.

#### **CO-OP** Plans

There are four (4) co-op scheduling plans available:

- Plan A Student works full-time for an employer for 12 months.
- Plan B Student works alternate semesters at the employer's site (work, return to school, work, etc.)
- Plan C Student will attend college and work approximately 20 hours per week for the employer.
- Plan D Summer only assignment (two [2] or more summers)

Employers may specify in advance that students have completed certain courses prior to the co-op assignment. The co-op hiring process is competitive. Students must go through an interview process with the employer. Students participating in the co-op program must register and enroll in one credit hour for each semester of their assignment (including summer semester). This does not count toward graduation requirements.

## **College of Agriculture and Human Ecology**

## **College of Agriculture and Human Ecology**

• College of Agriculture and Human Ecology Website **Dr. Darron Smith, Dean** 

#### **Schools and Program Information**

## **School of Agriculture**

Departmental Graduate Faculty: Douglas L. Airhart, C. Pat Bagley, Dennis Duncan, Ciana Bowhay, B. Bruce Green, Dennis Fennewald, Brian Leckie, Keith D. Morris, Michael Nattrass, Seong Park, G. Kim Stearman

Although a graduate degree is not available in the School of Agriculture, certain senior-level courses have been so designed as to generate graduate credit and these courses are dually listed as 4000 (5000). A student must register for the 5000-level course in order to get graduate credit and additional assignments will be required. Students are warned that graduate credit will not be given for a 4000-level registration.

## **School of Human Ecology**

Melinda Anderson, Director

Departmental Graduate Faculty: Melinda Anderson, Rufaro Chitiyo, Samantha Hutson, Elizabeth Ramsey, Lee Ann Shipley, Cara Sisk

• Community Health and Nutrition, M.S.

## **Master of Science**

# Community Health and Nutrition, Future Education Model, M.S.

Community Health and Nutrition Program Information

#### Degree Requirements

The M.S. in Community Health and Nutrition will provide graduate course work to two audiences: (1) credentialed Registered Dietitians who seek a M.S. degree only and (2) students who seek both

credentialing as a Registered Dietitian/Nutritionist (Future Education Model Future Graduate program) and the M.S. Degree. The M.S. degree only in Community Health and Nutrition is a 30-hour degree program. The M.S. degree plus FEM FG program requires an additional 12 credit hours in experiential learning practicum courses. Each practicum course requires approximately 54 hours of experiential learning. In addition, approximately 30 hours of experiential learning is integrated into each didactic online course.

## Proposed Program of Study, Community Health and Nutrition Future Education Model (FEM) Graduate Program:

## Fall 1 Courses

- HEC 5010 Principles of Nutrition Research Cr. 3.
- HEC 5025 Cr. 3.
- HEC 5015 Cr. 3.

## Spring 1 Courses

- HEC 6201 Cr. 3.
- HEC 6225 Cr. 3
- HEC 6250-Exp Learning (FS/ext.) Cr. 3.

### Summer 1 Courses

- HEC 6251 Exp Learning (Comm.) Cr. 3.
- HEC 6252 Exp Learning (Clin.) Cr. 3.

## Fall 2 Courses

- HEC 6410 Cr. 3.
- HEC 6405 Cr. 3.
- HEC 6253 Exp Learning (Elective) Cr. 3.

## Spring 2 Courses

- PRST 6540 Health Informatics Cr. 3.
- HEC 6430 Cr. 3.
- HEC 6440 Cr. 3.

Total Degree Requirement: 42 credit hours

## **Community Health and Nutrition, M.S.**

Community Health and Nutrition Program Information

#### Degree Requirements

The M.S. in Community Health and Nutrition will provide graduate course work to two audiences: (1) credentialed Registered Dietitians who seek a M.S. degree only and (2) students who seek both credentialing as a Registered Dietitian/Nutritionist (Future Education Model Future Graduate program) and the M.S. Degree. The M.S. degree only in Community Health and Nutrition is a 30-hour degree program. The M.S. degree plus FEM FG program requires an additional 12 credit hours in experiential learning practicum courses. Each practicum course requires approximately 54 hours of experiential learning. In addition, approximately 30 hours of experiential learning is integrated into each didactic online course.

#### Proposed Program of Study, Community Health and Nutrition Graduate Program:

## Fall 1 Courses

- HEC 5010 Principles of Nutrition Research Cr. 3.
- HEC 5015 Perspectives in Rural Community Health Cr. 3.
- HEC 5025 Cultural Issues Influencing Health Cr. 3.

## Spring 1 Courses

- HEC 6201 Community Nutrition Programs and Services Cr. 3.
- HEC 6225 Advanced Applications of Counseling Techniques Cr. 3.
- PRST 6540 Health Informatics Cr. 3.

## Summer 1 Courses

- HEC 6405 Nutrition Across the Life Cycle Cr. 3.
- HEC 6440 Leadership, Advocacy, and Nutrition Policy Cr. 3.

## Fall 2 Courses

- HEC 6410 Nutrition and Aging Cr. 3. or
- PRST 6100 Professional Environment: Issues and Ethics Cr. 3.
- HEC 6430 Community Health and Nutrition Capstone Cr. 3.

Total Degree Requirement: 30 hours

## School of Human Ecology

## School of Human Ecology

Melinda Anderson, Director

Departmental Graduate Faculty: Melinda

## Anderson, Rufaro Chitiyo, Samantha Hutson, Elizabeth Ramsey, Lee Ann Shipley, Cara Sisk

• Community Health and Nutrition, M.S.

## **Human Ecology Program Information**

The Master of Science in Human Ecology is an interdisciplinary study of the relationships between humans and their social, natural and built environments. The goals of the M.S. in Human Ecology are to:

- Prepare professionals to improve quality of life for individuals, families and communiteis through advanced knowledge in Human Ecology content
- Provide for professional development of practitioners through online educational opportunities
- Prepare professionals to analyze and propose solutions for real-world problems through critical thinking.

#### Admissions Requirements

Full Standing:

- 1. Overall undergraduate GPA of 2.50 or above upcon completion of a baccalaureate degree program from an accredited university
- 2. One letter of recommendation from someone who has adequate knowledge of the applicant's professional qualities or potential for success as a graduate student
- GRE Scores: exceed 145 on Verbal Resoning AND 145 or above on Quantitative Reasoning AND a score of 4.0 on Analytical Writing is required

Additional Requirements for International Students:

 International students must also meet the English Language Requirement by providing FLS Level 9 AND test results on one of the following: TOEFL mimimum IBT of 71 (FLS not required with TOEFL); IELTS minimum score of 5.5; PTE academic minimum score of 48.

Admissions Requirements for the Sports Nutrition concentration are:

- Overall undergraduate GPA of 3.0 or above upon completion of a baccalaureate degree from an accredited university in nutrition/dietetics, exercise science or closely related field. Preference given to Registered Dietitian/Nutritionists: Exercise Physiologists, and professionals with extensive work experience in teh field of fitness and wellness. Students without the appropriate undergraduate degree may need to complete prerequisite courses in Nutrition, Anatomy and Physiology, Biology and Exercise Physiology before admission
- 2. GRE as listed above
- 3. Inernational students as listed above
- 4. Letter of recommendation as listed above.

## **Community Health and Nutrition Program Information**

#### Department Overview

The School of Human Ecology offers a Master of Science in Community Health and Nutrition. Coursework in this program is online. The Community Health and Nutrition program has been granted candidacy for

accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND), as a Future Education Model Future Graduate program, making it appropriate for those students who wish to become registered dietitian/nutritionists.

This program is also designed to offer additional professional training for various community health professionals, including those who are already credentialed registered dietitian/nutritionists, educators, nurses, and others interested in nutrition related health information.

This program includes an experiential learning component. If students meet the admission criteria specific to the Future Graduate program listed below, are admitted to the program, complete the coursework, and earn a Verification Statement, students are then eligible to sit for the registration exam for dietitians/nutritionists that is offered by the Commission on Dietetic Registration.

#### Admissions Requirements

Applicants must submit the following for admission consideration:

- 1. Online application for graduate admission and the nonrefundable application fee;
- 2. Official transcripts of undergraduate and graduate credit from all institutions attended;
- Undergraduate degrees accepted include: nutrition, dietetics, public health, kinesiology, health sciences, nursing, psychology, human development and family studies, family and consumer sciences, and biobehavioral health. Other undergraduate degrees not specifically listed here will be reviewed based on transcript content;
- 4. Prerequisite undergraduate coursework must include an introductory nutrition course (equivalent to Tennessee Tech's HEC 2020 Nutrition for Health Sciences); one advanced nutrition course (higher level than introductory nutrition) must have a "B" or better in these two nutrition courses; and 8 credits of chemistry or biology at the 3000/4000 level with a grade of "C" or better;
- 5. Undergraduate GPA of at least 3.0 on a 4.0 scale;
- 6. References (2)- when you submit your application provide contact information for two references. An email will then be sent to these references to complete an online recommendation form. At least one reference should be from a former professor/instructor. Your application is not completed until these recommendation forms are submitted by your references;
- You will need to indicate on your graduate application if you are applying to only the MS Degree in Community Health and Nutrition or both the Degree and the optional Experiential Learning Trackthe Experiential Learning Track has additional admission requirements;
- 8. Resume upload your resume (no more than 2 pages);
- 9. Student Health Form;
- 10. Personal Statement- upload a separate document which includes the following: state why you have the abilities, experiences, skills and knowledge to succeed in our degree program. Your statement should demonstrate why you are interested in this graduate degree program and how it will help you meet career goals. Please limit your statement to 1,200 words or fewer and use 12-point font, single-spaced format.

Specifically address the following questions in your personal statement:

- a. What are your professional goals; elaborate on future career plans and the motivation for pursuing a MS in Community Health and Nutrition
- b. In what ways will the MS in Community Health and Nutrition build upon your current skill set
- c. Why are you a good fit for this degree program
- d. Elaborate on your unique story which motivates you to seek this graduate degree

Note: Applicants are selected on a competitive basis and, therefore, admission is not granted to all applicants who meet only the minimum requirements.

Application deadline for degree only seeking students varies based on the semester you wish to enroll. Application deadlines may be found on the College of Graduate Studies "How to Apply" section of the website.

For those interested in the supervised experiential learning necessary to become a registered dietitian/nutritionist, they must apply by the December 15 deadline for a Fall start date. If cohort does not fill, applications for a Fall start date will be accepted until April 15.

#### Additional Admissions Requirements - Experiential Learning Track:

In addition to the requirements for admission to the MS in Community Health and Nutrition Degree as stated above, applicants who want to also be admitted to the Experiential Learning Track must provide:

- Evidence of Work/Volunteer Experience documentation of 300 hours of work or volunteer experience completed within four years of application is preferred. Of the 300 hours, at least 200 hours must be in a nutrition- or dietetics-related field. You will be required to complete the Experiential Track Supplemental Form to document your experiences. This form will be uploaded with your Graduate application and is available on the College of Graduate Studies Online Forms webpage.
- Prerequisite coursework- for applicants who do not have a Verification Statement from an ACEND accredited Didactic Program in Dietetics (DPD) the following prerequisite coursework must have been completed within five years from an accredited institution:
  - a. Introductory Nutrition course equivalent to Tennessee Tech's HEC 2020 Nutrition for Health Sciences
  - b. Advanced Nutrition course (higher level than Introductory Nutrition)
  - c. Organic Chemistry
  - d. Microbiology or Biochemistry
  - e. Experimental Foods, Food Preparation, Quantity Food Production, or
  - f. Foodservice Management

Additionally, students must have a grade of B or better in each of the nutrition courses and a grade of C or better in the science courses.

3. DPD Verification Statement- for students with a bachelor's degree from an ACEND accredited Didactic Program in Dietetics (DPD), you will be required to upload your DPD Verification statement or an Intent to Complete form or letter from DPD Director stating courses to be completed with your Graduate application.

4. Personal Statement: in addition to the questions listed above for the Personal Statement, applicants for the Experiential Learning Track should include why they are pursuing the Registered Dietitian/Nutritionist (RDN) credential.

5. Candidates for admission to the Experiential Learning Track will be required to participate in a virtual (face to face) interview via a video conferencing platform.

## **School of Agriculture**

## School of Agriculture

Departmental Graduate Faculty: Douglas L. Airhart, C. Pat Bagley, Dennis Duncan, Ciana Bowhay, B. Bruce Green, Dennis Fennewald, Brian Leckie, Keith D. Morris, Michael Nattrass, Seong Park, G. Kim Stearman

Although a graduate degree is not available in the School of Agriculture, certain senior-level courses have been so designed as to generate graduate credit and these courses are dually listed as 4000 (5000). A

student must register for the 5000-level course in order to get graduate credit and additional assignments will be required. Students are warned that graduate credit will not be given for a 4000-level registration.

## **College of Arts and Sciences**

## **College of Arts and Sciences**

College of Arts and Sciences Information
Paul Semmes, Dean

### **Department and Program Information**

## **Department of Biology**

Department of Biology Web Site

**Chris Brown, Chairperson** 

Departmental Graduate Faculty: S K Balle, David L. Beck, Christopher A. Brown, Brian D. Carver, Bradley Cohen, Daniel L. Combs, Steven Bradford Cook, W. Keith Gibbs, John H. Gunderson, Steven E. Hayslette, Carla Hurt, Robert Kissell, Bernard Kahajda, Justin N. Murdock, Christopher Murray, Nikki Panter, Mark W. Rogers, Amanda Rosenberger, Jeff Shaeffer, Katrina Twing, Christopher "Kit" Wheeler, Shawn Zeringue-Krosnick

## Biology, M.S.

**Biology Program Information** 

#### **Degree Requirements**

The M.S. in Biology is a 30 hour research degree program. Core requirements are defined as follows:

- Core required courses: 1 hour
- Advisor Approved Electives: 20 hours
- Research and Thesis: 6 hours
- Statistics course: 3 hours
- Total Hours: 30 hours

## Core Required Course (1 hour)

• BIOL 6930 - Seminar Cr. 1.

## Advisor Approved Electives (20 hours)

Selection of appropriate courses (BIOL 5000, BIOL 6000, EVSB 7000 level, EVS 7900 and WFS 5000 level) will be in consultation with the student's advisory committee and/or the graduate coordinator.

## Thesis Research Requirements (6 hours)

• BIOL 6990 - Research & Thesis Cr. 1-9.

## Core Statistics Requirement (3 hours)

- BIOL 4220 (5220) Biostatistics Cr. 3.
- BIOL 6140 Fish and Wildlife Biometrics Cr. 3.
- BIOL 6810 Ecological Ordination Cr. 3.
- MATH 4470 (5470) Probability and Statistics I Cr. 3.
- MATH 4480 (5480) Probability and Statistics II Cr. 3.
- MATH 6070 Applied Linear Statistical Methods I Cr. 3.
- MATH 6080 Applied Linear Statistical Methods II Cr. 3.
- MATH 6170 Experimental Design I Cr. 3.
- MATH 6180 Experimental Design II Cr. 3.
- MATH 6270 Mathematical Statistics Cr. 3.
- MATH 6470 Environmental Statistics Cr. 3.
- PSY 6310 Educational Statistics Cr. 3.
- PSY 7310 Advanced Educational Statistics Cr. 3.
- WFS 4220 (5220) Biostatistics Cr. 3.

### **Department of Chemistry**

- Department of Chemistry Information
- Jeffrey O. Boles, Chairperson

Departmental Graduate Faculty: Jeffrey O. Boles, Jesse D. Carrick, Andrew Callender, William Carroll, Amanda J. Carroll, Derek J. Cashman, David J. Crouse, Dale Ensor (emeritus), Wilson Gichuhi, Robert J. Glinski, Cory Hawkins, Zachary Holden, Xiaohua Jiang, Edward C. Lisic, Twanelle Deann Walker Majors, Jonathan Moldenhaur, Philip B. Oldham, Chad E. Rezsnyak, Daniel J. Swartling, Martha Wells, Tao Yu, Xuanzhi Zhang, Hong Zhang

## Chemistry, M.S.

**Chemistry Program Information** 

#### Degree Requirements

- Core Required Courses: 9 hours
- Advanced Electives: 12 hours
- Additional Electives: 9 hours
- Total: 30 hours

The program of study for the M.S. in Chemistry includes satisfactory completion of a thesis, and coursework as detailed below:

### **Required Core**

#### Seminars (2 hours)

- CHEM 6910 Chemistry Literature Seminar Cr. 1.
- CHEM 6911 Chemistry Thesis Seminar Cr. 1.

#### Research & Thesis (6 hours)

• CHEM 6990 - Research and Thesis Cr. 1-9. (6 hours required)

#### Directed Studies (1 hour)

• CHEM 6900 - Directed Studies in Chemistry Cr. 1.

#### Note:

CHEM 6900 (Directed Studies) includes a comprehensive oral examination administered by the student's graduate committee.

## Advanced Electives (12 hours)

Advanced Electives may be selected from any coursework that meets the department's expectations, based on the student's Program of Study and in consultation with the student's graduate committee and the program academic advisor.

• Any CHEM 6000 OR 7000 LEVEL OR EVS 7000 LEVEL

## Additional Electives (9 hours)

Additional Electives may be selected from any coursework that meets the department's expectations, based on the student's Program of Study and in consultation with the student's graduate committee and the program academic advisor.

• Any CHEM 5000 OR 6000 Level

### Total Degree Requirements: 30 hours

## **Department of English**

## **Department of English**

Department of English Web Site

Linda Null, Interim Chairperson

Departmental Graduate Faculty:

Full Membership: Anthony D. Baker, Paulina Bounds, Michael L. Burduck, Mark H. Creter, Kristen Deiter, Monic Ductan, Daniel Ernst, Jennifer Gray, Erin Hoover, Helen Hunt, Graham S. Kash, Shirley D. Laird, Josephine A. McQuail, Linda J. Null, Ted Pelton, Kristin D. Pickering, Mari Ramier, Matthew Stenson, Brian Williams

Associate Membership: Sharon K. Henry, Susan Moynihan

## **Master of Arts**

## English, Creative Writing Concentration, M.A.

English Program Information

#### **Degree Requirements**

#### **Thesis Option**

- Core Required Courses: 9 hours
- Concentration Content Courses: 15 hours
- Research and Thesis Requirement: 6 hours
- Total Degree Requirements: 30 hours

## Core Required Courses (9 hours)

When necessary, a committee of the instructor of record, the department chair, and the graduate advisor will determine how a course fits into the existing curriculum.

- One 6000-level course in American Literature
- One 6000-level course in British Literature
- ENGL 6000 Introduction to Graduate Studies Cr. 3.

## Concentration Content Courses (15 hours)

Three courses from among the following (must take 5000-level in dual-listed courses):

- ENGL 4430 (5430) Creative Writing: Fiction Cr. 3. \*
- ENGL 4440 (5440) Creative Writing: Essay Cr. 3. \*
- ENGL 4450 (5450) Creative Writing: Poetry Cr. 3. \*
- ENGL 6710 Poetry Workshop Cr. 3.
- ENGL 6720 Creative Prose Workshop Cr. 3.
- Two additional graduate-level electives in ENGL, THEA, or PC (at least one of these must be at the 6000-level).

\*Any of these courses may be repeated, for credit.

## Research and Thesis Requirement (6 hours):

• ENGL 6990 - Research and Thesis Cr. 3, 6. The Creative Writing concentration does not include a non-thesis option.

#### Course Repeatability Options

### Previously Taken as an Undergraduate

Courses may be repeated one time by a graduate student who has previously taken it as an undergraduate, provided the content is different. Applicable courses include:

- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.
- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4650 (5650) The Graphic Novel Cr. 3.
- ENGL 4712 (5712) African American Literature Cr. 3.
- ENGL 4713 (5713) Native American Literature Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4970 (5970) Professional Communication II Cr. 3.
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.

#### Repeatable by Graduate Student

Courses may be repeated one time by a graduate student, provided the content is different. Applicable courses include:

- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.
- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.

- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.
- PC 6050 The Rhetoric of STEM Professions Cr. 3.

## English, Literature Concentration, M.A.

English Program Information

#### **Degree Requirements**

The Literature concentration provides both a Thesis and Non-Thesis option for our students. The program consists of core courses, concentration content courses, and a research component as summarized below:

#### **Thesis Option**

- Core Coursework: 9 hours
- Concentration Content Coursework: 15 hours
- Research and Thesis: 6 hours
- Total Degree Requirements: 30 hours

#### **Non-Thesis Option**

- Core Coursework: 9 hours
- Concentration Content Coursework: 15 hours
- Non-Thesis Requirement: 9 hours
- Total Degree Requirements: 33 hours

#### All Students Must Complete:

- One graduate course in British Literature before 1800
- One graduate course in British Literature after 1800
- One graduate course in American Literature before 1865
- One graduate course in American Literature after 1865
- ENGL 6000 Introduction to Graduate Studies
- Three graduate-level electives selected by student and advisor

#### Core Courses (9 hours):

- One 6000-level course in American Literature
- One 6000-level course in British Literature
- ENGL 6000 Introduction to Graduate Studies

#### Concentration Content Coursework (15 hours)\*:

• One additional course in American Literature

- One additional course in British Literature
- Three graduate-level electives selected by the student and advisor

\*Of the two required British Literature courses, one must be pre-1800 and the other post-1800. Of the two required American Literature courses, one must be pre-1865 and the other post-1865.

\*Of the following courses, whether the course belongs in any particular category depends on the professor's focus during the semester the course is offered.

### British Literature Before 1800

- ENGL 4121 (5121) Shakespeare Cr. 3.
- ENGL 4130 (5130) Milton Cr. 3.
- ENGL 4140 (5140) Topics in British Literature to 1667 Cr. 3.
- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4240 (5240) Topics in British Literature After 1667 Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.
- ENGL 4911 (5911) The Literature of Science Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.
- ENGL 6400 Special Topics Cr. 3.

#### British Literature After 1800

- ENGL 4221 (5221) Romantic Literature Cr. 3.
- ENGL 4231 (5231) Victorian Literature Cr. 3.
- ENGL 4240 (5240) Topics in British Literature After 1667 Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.
- ENGL 4921 (5921) Literature and Technology Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 6290 Seminar in Nineteenth Century British Literature Cr. 3.
- ENGL 6350 Sem. in 20th & 21st Century Brit Lit Cr. 3.

• ENGL 6400 - Special Topics Cr. 3.

### American Literature Before 1865

- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4340 (5340) Topics in American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4830 (5830) Southern Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.
- ENGL 4911 (5911) The Literature of Science Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.

### American Literature After 1865

- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4340 (5340) Topics in American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4830 (5830) Southern Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.
- ENGL 4911 (5911) The Literature of Science Cr. 3.
- ENGL 4921 (5921) Literature and Technology Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- ENGL 6400 Special Topics Cr. 3.

Non-Thesis Degree Requirements (9 hours)

Non-Thesis students are required to complete the following:

- Comprehensive Exam
  - In their final semester in the program, students will take a comprehensive exam based on the combined reading lists from the three members of the student's advisory committee. The exam will be comprised of questions selected by the committee. All possible questions will be shared with the student in advance, but the student will not know ahead of time which specific questions will be selected. The student will have up to six hours to complete the proctored, closed-book exam.
  - Students will then orally defend their exams to their committee, and the faculty committee members will evaluate the questions and defense on a pass/fail basis. A "pass" for the exam requires a simple majority of the committee.
- ENGL 6890 Directed Research Cr. 3.
- Two additional graduate-level electives selected by student and advisor \*When necessary, a committee of the instructor of record, the department chair, and the graduate advisor will determine how a course fits into the existing curriculum.

#### Course Repeatability Options

## Previously Taken as an Undergraduate

Courses may be repeated one time by a graduate student who has previously taken it as an undergraduate, provided the content is different. Applicable courses include:

- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.
- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4650 (5650) The Graphic Novel Cr. 3.
- ENGL 4712 (5712) African American Literature Cr. 3.
- ENGL 4713 (5713) Native American Literature Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4970 (5970) Professional Communication II Cr. 3.
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.

## Repeatable by Graduate Student

Courses may be repeated one time by a graduate student, provided the content is different. Applicable courses include:

- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.

- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.
- PC 6050 The Rhetoric of STEM Professions Cr. 3.

# English, Professional and Technical Communication Concentration, M.A.

**English Program Information** 

#### **Degree Requirements**

The Professional and Technical Communication concentration is comprised of three components: core courses, concentration courses, and a research component. The program is available in a Thesis Option (30 hours) and Non-Thesis option (33 hours).

#### **Thesis Option**

- Core Course Requirements: 9 hours
- Concentration Course Requirements:15 hours
- Research and Thesis Requirement: 6 hours
- Total Degree Requirements: 30 hours

#### **Non-Thesis Option**

- Core Course Requirements: 9 hours
- Concentration Course Requirements: 15 hours
- Advisor Approved Electives: 3 hours
- Non-Thesis Research Requirement: 6 hours
- Total Degree Requirements: 33 hours

## Core Courses (9 hours)

\*When necessary, a committee of the instructor of record, the department chair, and the graduate advisor will determine how a course fits into the existing curriculum.

- One 6000-level course in American Literature
- One 6000-level course in British Literature
- ENGL 6000 Introduction to Graduate Studies Cr. 3.

### Concentration Content Courses (15 hours)

- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.
- PC 6040 Special Topics in Professional and Technical Communication and Industry Cr. 3.

- PC 6050 The Rhetoric of STEM Professions Cr. 3. For students who have taken any of the above PC courses at the 4000-level, two of the following 5000-level PC courses may be substituted for two of the above 5000-level courses:
- ENGL 4411 (5411) Writing in the Professions Cr. 3.
- ENGL 4421 (5421) Forms of Argumentation and Persuasion: Theory and Practice Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4521 (5521) History of the English Language Cr. 3.
- ENGL 4531 (5531) Grammar and Language Cr. 3.
- ENGL 4541 (5541) Topics in Linguistics/Language Cr. 3.
- ENGL 4451 (5451) Introduction to Rhetoric: Theory and Practice Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.

#### 9 credit hours from 5000-level courses below\*

- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4950 (5950) Topics in Professional and Technical Communication CR. 3
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.
- Either PC 6040 or PC 6050 (PC 6040 and PC 6050 may be taken twice, provided the content is different.)

## Thesis Requirement (6 hours):

• ENGL 6990 - Research and Thesis Cr. 3, 6.

## Non-Thesis Requirements (9 hours):

- Portfolio
  - The student will be responsible for compiling a four-part portfolio, to be designed in conjunction with and reviewed by their faculty committee. Students will orally defend their portfolios to their committee, and faculty committee members will then evaluate the questions and defense on a pass/fail basis. A "pass" for the defense requires a simple majority of the committee.
  - Portfolio Components
    - 1. Project Proposal/Prospectus which provides background on the projects, theoretical influences [drawn from courses] on their proposed redevelopment, a description of the specific projects included, and a timeline for completion.
    - 2. Two digital artifacts from other graduate courses that have been redeveloped and expanded (Examples include but are not limited to podcasts, videos, social media creation and curation accounts, websites, technical reports, and grants.)
    - 3. A Client Project (This would be completed while a student is enrolled in a graduate-level internship. Because the portfolio option requires an additional course, that course would be PC 4850 (5850) Internship.)
    - 4. A Critical Reflection (This reflection integrates sources/theoretical background from previous courses as well as additional sources.)
- Comprehensive Exam based on the portfolio and defense
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- ENGL 6890 Directed Research Cr. 3.

• One graduate-level elective to be selected by student and advisor. (ENGL 5XXX - ENGL 6XXX)

NOTE: While students within the Professional and Technical Communication concentration of the English M.A. will have opportunities for teaching assistantships, graduate students will not teach PC 2500 - Communicating in the Professions.

#### Course Repeatability Options

### Previously Taken as an Undergraduate

Courses may be repeated one time by a graduate student who has previously taken it as an undergraduate, provided the content is different. Applicable courses include:

- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.
- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4650 (5650) The Graphic Novel Cr. 3.
- ENGL 4712 (5712) African American Literature Cr. 3.
- ENGL 4713 (5713) Native American Literature Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4970 (5970) Professional Communication II Cr. 3.
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.

### Repeatable by Graduate Student

Courses may be repeated one time by a graduate student, provided the content is different. Applicable courses include:

- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.
- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.
- PC 6050 The Rhetoric of STEM Professions Cr. 3.

## **Department of Earth Sciences**

#### Jennette Luna, Interim Chairperson

## Departmental Graduate Faculty: Joseph Asante, Evan A. Hart, Peter Li, Lauren Michel

No graduate degree is offered in Earth Sciences, but courses may be used (with advisory committee approval) as electives in other fields of study.

Students majoring in Earth Sciences may "FastTrack" into the Professional Science Master's in Environmental Informatics program. For information on FastTrack requirements, visit the Professional Science, Environmental Informatics Concentration, P.S.M. catalog page.

## Department of English

Department of English Web Site

Linda Null, Interim Chairperson

**Departmental Graduate Faculty:** 

Full Membership: Anthony D. Baker, Paulina Bounds, Michael L. Burduck, Mark H. Creter, Kristen Deiter, Monic Ductan, Daniel Ernst, Jennifer Gray, Erin Hoover, Helen Hunt, Graham S. Kash, Shirley D. Laird, Josephine A. McQuail, Linda J. Null, Ted Pelton, Kristin D. Pickering, Mari Ramier, Matthew Stenson, Brian Williams

Associate Membership: Sharon K. Henry, Susan Moynihan

## English, Creative Writing Concentration, M.A.

**English Program Information** 

#### **Degree Requirements**

Thesis Option

- Core Required Courses: 9 hours
- Concentration Content Courses: 15 hours
- Research and Thesis Requirement: 6 hours
- Total Degree Requirements: 30 hours

### Core Required Courses (9 hours)

When necessary, a committee of the instructor of record, the department chair, and the graduate advisor will determine how a course fits into the existing curriculum.

- One 6000-level course in American Literature
- One 6000-level course in British Literature
- ENGL 6000 Introduction to Graduate Studies Cr. 3.

## Concentration Content Courses (15 hours)

Three courses from among the following (must take 5000-level in dual-listed courses):

- ENGL 4430 (5430) Creative Writing: Fiction Cr. 3. \*
- ENGL 4440 (5440) Creative Writing: Essay Cr. 3. \*
- ENGL 4450 (5450) Creative Writing: Poetry Cr. 3. \*
- ENGL 6710 Poetry Workshop Cr. 3.
- ENGL 6720 Creative Prose Workshop Cr. 3.
- Two additional graduate-level electives in ENGL, THEA, or PC (at least one of these must be at the 6000-level).

\*Any of these courses may be repeated, for credit.

## Research and Thesis Requirement (6 hours):

• ENGL 6990 - Research and Thesis Cr. 3, 6. The Creative Writing concentration does not include a non-thesis option.

#### **Course Repeatability Options**

### Previously Taken as an Undergraduate

Courses may be repeated one time by a graduate student who has previously taken it as an undergraduate, provided the content is different. Applicable courses include:

- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.
- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4650 (5650) The Graphic Novel Cr. 3.
- ENGL 4712 (5712) African American Literature Cr. 3.
- ENGL 4713 (5713) Native American Literature Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4970 (5970) Professional Communication II Cr. 3.
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.

### Repeatable by Graduate Student

Courses may be repeated one time by a graduate student, provided the content is different. Applicable courses include:

- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.
- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.
- PC 6050 The Rhetoric of STEM Professions Cr. 3.

## English, Literature Concentration, M.A.

English Program Information

#### **Degree Requirements**

The Literature concentration provides both a Thesis and Non-Thesis option for our students. The program consists of core courses, concentration content courses, and a research component as summarized below:

#### **Thesis Option**

- Core Coursework: 9 hours
- Concentration Content Coursework: 15 hours
- Research and Thesis: 6 hours
- Total Degree Requirements: 30 hours

#### **Non-Thesis Option**

- Core Coursework: 9 hours
- Concentration Content Coursework: 15 hours
- Non-Thesis Requirement: 9 hours
- Total Degree Requirements: 33 hours

#### All Students Must Complete:

- One graduate course in British Literature before 1800
- One graduate course in British Literature after 1800
- One graduate course in American Literature before 1865
- One graduate course in American Literature after 1865
- ENGL 6000 Introduction to Graduate Studies
- Three graduate-level electives selected by student and advisor

#### Core Courses (9 hours):

- One 6000-level course in American Literature
- One 6000-level course in British Literature
- ENGL 6000 Introduction to Graduate Studies

#### Concentration Content Coursework (15 hours)\*:

- One additional course in American Literature
- One additional course in British Literature
- Three graduate-level electives selected by the student and advisor

\*Of the two required British Literature courses, one must be pre-1800 and the other post-1800. Of the two required American Literature courses, one must be pre-1865 and the other post-1865.

\*Of the following courses, whether the course belongs in any particular category depends on the professor's focus during the semester the course is offered.

### British Literature Before 1800

- ENGL 4121 (5121) Shakespeare Cr. 3.
- ENGL 4130 (5130) Milton Cr. 3.
- ENGL 4140 (5140) Topics in British Literature to 1667 Cr. 3.
- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4240 (5240) Topics in British Literature After 1667 Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.
- ENGL 4911 (5911) The Literature of Science Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.
- ENGL 6400 Special Topics Cr. 3.

#### British Literature After 1800

- ENGL 4221 (5221) Romantic Literature Cr. 3.
- ENGL 4231 (5231) Victorian Literature Cr. 3.
- ENGL 4240 (5240) Topics in British Literature After 1667 Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.

- ENGL 4921 (5921) Literature and Technology Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 6290 Seminar in Nineteenth Century British Literature Cr. 3.
- ENGL 6350 Sem. in 20th & 21st Century Brit Lit Cr. 3.
- ENGL 6400 Special Topics Cr. 3.

#### American Literature Before 1865

- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4340 (5340) Topics in American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4830 (5830) Southern Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.
- ENGL 4911 (5911) The Literature of Science Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.

#### American Literature After 1865

- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4340 (5340) Topics in American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4620 (5620) Poetry: Form, Genre, Theory Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4731 (5731) Approaches to Women and Literature Cr. 3.
- ENGL 4830 (5830) Southern Literature Cr. 3.
- ENGL 4840 (5840) The Gothic Tale of Terror Cr. 3.
- ENGL 4911 (5911) The Literature of Science Cr. 3.
- ENGL 4921 (5921) Literature and Technology Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4981 (5981) Topics Cr. 1.
- ENGL 4982 (5982) Topics Cr. 2.
- ENGL 4983 (5983) Topics Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.

- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- ENGL 6400 Special Topics Cr. 3.

## Non-Thesis Degree Requirements (9 hours)

Non-Thesis students are required to complete the following:

- Comprehensive Exam
  - In their final semester in the program, students will take a comprehensive exam based on the combined reading lists from the three members of the student's advisory committee. The exam will be comprised of questions selected by the committee. All possible questions will be shared with the student in advance, but the student will not know ahead of time which specific questions will be selected. The student will have up to six hours to complete the proctored, closed-book exam.
  - Students will then orally defend their exams to their committee, and the faculty committee members will evaluate the questions and defense on a pass/fail basis. A "pass" for the exam requires a simple majority of the committee.
- ENGL 6890 Directed Research Cr. 3.
- Two additional graduate-level electives selected by student and advisor \*When necessary, a committee of the instructor of record, the department chair, and the graduate advisor will determine how a course fits into the existing curriculum.

#### **Course Repeatability Options**

## Previously Taken as an Undergraduate

Courses may be repeated one time by a graduate student who has previously taken it as an undergraduate, provided the content is different. Applicable courses include:

- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.
- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4650 (5650) The Graphic Novel Cr. 3.
- ENGL 4712 (5712) African American Literature Cr. 3.
- ENGL 4713 (5713) Native American Literature Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4970 (5970) Professional Communication II Cr. 3.
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.

Repeatable by Graduate Student

Courses may be repeated one time by a graduate student, provided the content is different. Applicable courses include:

- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.
- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.
- PC 6050 The Rhetoric of STEM Professions Cr. 3.

## English, Professional and Technical Communication Concentration, M.A.

English Program Information

#### **Degree Requirements**

The Professional and Technical Communication concentration is comprised of three components: core courses, concentration courses, and a research component. The program is available in a Thesis Option (30 hours) and Non-Thesis option (33 hours).

#### **Thesis Option**

- Core Course Requirements: 9 hours
- Concentration Course Requirements:15 hours
- Research and Thesis Requirement: 6 hours
- Total Degree Requirements: 30 hours

#### **Non-Thesis Option**

- Core Course Requirements: 9 hours
- Concentration Course Requirements: 15 hours
- Advisor Approved Electives: 3 hours
- Non-Thesis Research Requirement: 6 hours
- Total Degree Requirements: 33 hours

## Core Courses (9 hours)

\*When necessary, a committee of the instructor of record, the department chair, and the graduate advisor will determine how a course fits into the existing curriculum.

- One 6000-level course in American Literature
- One 6000-level course in British Literature
- ENGL 6000 Introduction to Graduate Studies Cr. 3.

## Concentration Content Courses (15 hours)

- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.
- PC 6040 Special Topics in Professional and Technical Communication and Industry Cr. 3.
- PC 6050 The Rhetoric of STEM Professions Cr. 3. For students who have taken any of the above PC courses at the 4000-level, two of the following 5000-level PC courses may be substituted for two of the above 5000-level courses:
- ENGL 4411 (5411) Writing in the Professions Cr. 3.
- ENGL 4421 (5421) Forms of Argumentation and Persuasion: Theory and Practice Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4521 (5521) History of the English Language Cr. 3.
- ENGL 4531 (5531) Grammar and Language Cr. 3.
- ENGL 4541 (5541) Topics in Linguistics/Language Cr. 3.
- ENGL 4451 (5451) Introduction to Rhetoric: Theory and Practice Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.

#### 9 credit hours from 5000-level courses below\*

- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4950 (5950) Topics in Professional and Technical Communication CR. 3
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.
- Either PC 6040 or PC 6050 (PC 6040 and PC 6050 may be taken twice, provided the content is different.)

### Thesis Requirement (6 hours):

• ENGL 6990 - Research and Thesis Cr. 3, 6.

## Non-Thesis Requirements (9 hours):

- Portfolio
  - The student will be responsible for compiling a four-part portfolio, to be designed in conjunction with and reviewed by their faculty committee. Students will orally defend their portfolios to their committee, and faculty committee members will then evaluate the questions and defense on a pass/fail basis. A "pass" for the defense requires a simple majority of the committee.
  - Portfolio Components
    - 1. Project Proposal/Prospectus which provides background on the projects, theoretical influences [drawn from courses] on their proposed redevelopment, a description of the specific projects included, and a timeline for completion.
    - 2. Two digital artifacts from other graduate courses that have been redeveloped and expanded (Examples include but are not limited to podcasts, videos, social media creation and curation accounts, websites, technical reports, and grants.)
    - 3. A Client Project (This would be completed while a student is enrolled in a graduate-level internship. Because the portfolio option requires an additional course, that course would be PC 4850 (5850) Internship.)

- 4. A Critical Reflection (This reflection integrates sources/theoretical background from previous courses as well as additional sources.)
- Comprehensive Exam based on the portfolio and defense
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- ENGL 6890 Directed Research Cr. 3.
- One graduate-level elective to be selected by student and advisor. (ENGL 5XXX ENGL 6XXX)

NOTE: While students within the Professional and Technical Communication concentration of the English M.A. will have opportunities for teaching assistantships, graduate students will not teach PC 2500 - Communicating in the Professions.

#### Course Repeatability Options

### Previously Taken as an Undergraduate

Courses may be repeated one time by a graduate student who has previously taken it as an undergraduate, provided the content is different. Applicable courses include:

- ENGL 4210 (5210) Eighteenth-Century British Literature Cr. 3.
- ENGL 4250 (5250) Post Modern Literatures in English Cr. 3.
- ENGL 4310 (5310) Early American Literature Cr. 3.
- ENGL 4320 (5320) Nineteenth Century American Literature Cr. 3.
- ENGL 4330 (5330) Modern American Literature Cr. 3.
- ENGL 4610 (5610) Novel Cr. 3.
- ENGL 4630 (5630) Literary Criticism and Theory Cr. 3.
- ENGL 4650 (5650) The Graphic Novel Cr. 3.
- ENGL 4712 (5712) African American Literature Cr. 3.
- ENGL 4713 (5713) Native American Literature Cr. 3.
- ENGL 4931 (5931) Literature and the Environment Cr. 3.
- ENGL 4970 (5970) Professional Communication II Cr. 3.
- PC 4850 (5850) Internship Cr. 3,6,9,12.
- PC 4940 (5940) Technical Editing Cr. 3.
- PC 4970 (5970) Professional Communication II Cr. 3.
- PC 4990 (5990) Business and Grant Proposal Writing Cr. 3.

### Repeatable by Graduate Student

Courses may be repeated one time by a graduate student, provided the content is different. Applicable courses include:

- ENGL 6020 Seminar in Early British Literature Cr. 3.
- ENGL 6080 Seminar in British Literature 1500-1650 Cr. 3.
- ENGL 6150 Seminar in British Literature, 1650-1800 Cr. 3.
- ENGL 6400 Special Topics Cr. 3.
- ENGL 6520 Seminar in Early American Literature Cr. 3.
- ENGL 6590 Seminar in Nineteenth Century American Literature Cr. 3.
- ENGL 6640 Sem. in 20th & 21st Century Am Lit Cr. 3.
- PC 6030 Core Issues and Research in Professional and Technical Communication Cr. 3.

• PC 6050 - The Rhetoric of STEM Professions Cr. 3.

## **Department of Foreign Languages**

#### Mark Groundland, Interim Chairperson

#### Departmental Graduate Faculty: Michael Olsen

No degree is offered in Foreign Languages but courses may be used (with advisory committee approval) as electives in other fields of study.

## **Department of History**

#### Kent Dollar, Chairperson

## Departmental Graduate Faculty: Krystal Akehinmi, Arthur Banton, Kent T. Dollar, Allan E. Driggers, Paula K. Hinton, Susan D. Laningham, C. Elizabeth Propes, Jeffery J. Roberts, Troy D. Smith

No degree is offered in History but courses may be used (with advisory committee approval) as electives in other fields of study.

Unless otherwise noted, the courses listed have the prerequisite of 6 semester hours of history or consent of instructor.

## **Department of Mathematics**

Department of Mathematics Web Site

#### Michael Allen, Professor, Interim Chair

Departmental Graduate Faculty: Amy Chambers, Christopher Davis, Andrew Hetzel, Damian Kubiak, Richard C. Le Borne, Yung-Way Liu, Motoya Machida, Alan D. Mills, Brian M. O'Connor, Chudamani Poudyal, Alexander Shibakov, David Smith, Padmini P. Veerapen

## Mathematics, M.S.

Mathematics Program Information

#### **Departmental Degree Requirements**

Requirements for the M.S. degree in Mathematics are:

## Thesis Option

The M.S. in Mathematics with a Thesis option is a 30 hour degree program. Degree requirements include:

- Core Required Coursework: 6 hours
- Advisor Approved Electives: 6 hours
- Advisor Approved Sequence: 12 hours
- Research and Thesis Requirement: 6 hours
- Total Degree Requirements: 30 hours

At least 21 of the above credit hours must be at the 6000 level.

The following are the core courses and course sequences required for Thesis option:

### Core Required Coursework (6 hours)

- MATH 6110 Abstract Algebra I Cr. 3.
- MATH 6010 Functional Analysis I Cr. 3. OR
- MATH 6410 Real Analysis I Cr. 3. OR
- MATH 6310 Complex Analysis I Cr. 3.

## Advisor Approved Electives (6 hours)

Selection of appropriate MATH advisor approved courses (MATH 5XXX-MATH 6XXX) will be made in consultation with the student's advisory committee and/or graduate coordinator.

## Advisor Approved Sequence (12 hours)

A student may complete a sequence by taking any two of the six courses listed below. A student who takes four of of the six courses listed is considered to have completed two sequences.

- MATH 6510 Finite Difference Solutions of Partial Differential Equations Cr. 3.
- MATH 6520 Finite Element Solutions of Partial Differential Equations Cr. 3.
- MATH 6810 Partial Differential Equations Cr. 3.
- MATH 6530 Integral Equations and Applications Cr. 3.
- MATH 6540 Calculus of Variations and Applications Cr. 3.
- MATH 6610 Operational Mathematics Cr. 3.

#### Student may choose additional sequences from the following list:

- MATH 6010 Functional Analysis I Cr. 3. AND
- MATH 6020 Functional Analysis II Cr. 3.
- MATH 6070 Applied Linear Statistical Methods I Cr. 3. AND
- MATH 6080 Applied Linear Statistical Methods II Cr. 3.

- MATH 6110 Abstract Algebra I Cr. 3. AND
- MATH 6120 Abstract Algebra II Cr. 3.
- MATH 6170 Experimental Design I Cr. 3. AND
- MATH 6180 Experimental Design II Cr. 3.
- MATH 6210 Topology I Cr. 3. AND
- MATH 6220 Topology II Cr. 3.
- MATH 6240 Representations and Characters of Groups I Cr. 3. AND
- MATH 6250 Representations and Characters of Groups II Cr. 3.
- MATH 6310 Complex Analysis I Cr. 3. AND
- MATH 6320 Complex Analysis II Cr. 3.
- MATH 6370 Probability Theory and Stochastic Processes I Cr. 3. AND
- MATH 6380 Probability Theory and Stochastic Processes II Cr. 3.
- MATH 6410 Real Analysis I Cr. 3. AND
- MATH 6420 Real Analysis II Cr. 3.
- MATH 6450 Advanced Theory of Computation Cr. 3. AND
- MATH 6460 Computational Methods for Graphics and Modeling Cr. 3.
- MATH 6910 Special Topics in Mathematics Cr. 3. AND
- MATH 6920 Special Topics in Mathematics Cr. 1-3.

#### Research and Thesis Requirement (6 hours)

• MATH 6990 - Research and Thesis Cr. 3,6.

### Non-Thesis Option

The M.S. in Mathematics in the Non-Thesis program is a 33 hour program. Degree requirements are as follows:

- Core Course Requirements: 6 hours
- Advisor Approved Electives: 6 hours
- Advisor Approved Sequence: 18 hours
- Non-Thesis Project: 3 hours
- Total Degree Requirements: 33 hours

A comprehensive examination on two (2) of the three (3) one-year approved sequences used to fulfill the 18 credit hour requirement. The selection of the two (2) areas of examination will be left to the graduate student and to the graduate student's advisor, subject to the approval of the student's Graduate Advisory Committee. The exam will test both the student's knowledge of the subject areas and ability to independently solve problems and prove theorems.

At least 24 of the 33 hours will be at the 6000 level.

The following are the core courses and course sequences required for the Non-Thesis option:

### Core Required Coursework (6 hours)

- MATH 6110 Abstract Algebra I Cr. 3.
- MATH 6010 Functional Analysis I Cr. 3. OR
- MATH 6410 Real Analysis I Cr. 3. OR
- MATH 6310 Complex Analysis I Cr. 3.

## Advisor Approved Electives (6 hours)

Selection of appropriate MATH advisor approved courses (MATH 5XXX-MATH 6XXX) will be made in consultation with the student's advisory committee and/or graduate coordinator.

## Advisor Approved Sequence (18 hours)

A student may complete a sequence by taking any two of the six courses listed below. A student who takes four of of the six courses listed is considered to have completed two sequences.

- MATH 6510 Finite Difference Solutions of Partial Differential Equations Cr. 3.
- MATH 6520 Finite Element Solutions of Partial Differential Equations Cr. 3.
- MATH 6810 Partial Differential Equations Cr. 3.
- MATH 6530 Integral Equations and Applications Cr. 3.
- MATH 6540 Calculus of Variations and Applications Cr. 3.
- MATH 6610 Operational Mathematics Cr. 3.

Student may choose additional sequences from the following list:

- MATH 6010 Functional Analysis I Cr. 3. AND
- MATH 6020 Functional Analysis II Cr. 3.
- MATH 6070 Applied Linear Statistical Methods I Cr. 3. AND
- MATH 6080 Applied Linear Statistical Methods II Cr. 3.
- MATH 6110 Abstract Algebra I Cr. 3. AND
- MATH 6120 Abstract Algebra II Cr. 3.
- MATH 6170 Experimental Design I Cr. 3. AND
- MATH 6180 Experimental Design II Cr. 3.
- MATH 6210 Topology I Cr. 3. AND
- MATH 6220 Topology II Cr. 3.
- MATH 6240 Representations and Characters of Groups I Cr. 3. AND
- MATH 6250 Representations and Characters of Groups II Cr. 3.
- MATH 6310 Complex Analysis I Cr. 3. AND

- MATH 6320 Complex Analysis II Cr. 3.
- MATH 6370 Probability Theory and Stochastic Processes I Cr. 3. AND
- MATH 6380 Probability Theory and Stochastic Processes II Cr. 3.
- MATH 6410 Real Analysis I Cr. 3. AND
- MATH 6420 Real Analysis II Cr. 3.
- MATH 6450 Advanced Theory of Computation Cr. 3. AND
- MATH 6460 Computational Methods for Graphics and Modeling Cr. 3.
- MATH 6910 Special Topics in Mathematics Cr. 3. AND
- MATH 6920 Special Topics in Mathematics Cr. 1-3.

#### Non-Thesis Project (3 hours)

• MATH 6991 - Research and Independent Study Cr. 1-3.

### **Department of Physics**

#### Stephen J. Robinson, Chairperson

## Departmental Graduate Faculty: Paula Engelhardt, Adam T. Holley, Mary Frances Kidd, Raymond L. Kozub, Mustafa Moiz Rajabali, Stephen J. Robinson

No graduate degree is offered in Physics but courses may be used (with advisory committee approval) as electives in other fields of study.

## **Department of Sociology and Political Science**

#### Lori Maxwell, Chairperson

## Departmental Graduate Faculty: Lauren Howard Harding, Ada Haynes, Lori Maxwell, Gwendolyn Lachelle Norris

No degree is offered in Sociology or Criminal Justice but courses may be used (with advisory committee approval) as electives in other fields of study.

## **College of Arts and Sciences Information**

The College of Arts and Sciences offers the Master of Arts degree in English, the Master of Science degree in biology, chemistry, computer science, and mathematics. Students who have adequate academic qualifications may obtain graduate minors or pursue collateral study in such areas as geology, certain foreign languages, history, journalism, and sociology.

Specializations exist in each of the major areas of study, with course selection made according to a student's undergraduate background and proposed graduate research.

The program of study for a master's degree normally requires the completion of a minimum of 30 semester hours of graduate credit, including the research and writing of a thesis; however, prerequisite courses or collateral study may expand program requirements.

Graduate assistantships are available in each of the departments offering graduate degrees. Specific information concerning assistantships and degree requirements for the master's degrees may be obtained from the respective departments.

## **Biology Program Information**

#### **Departmental Overview**

The purpose of the Master of Science degree program in the Department of Biology is to prepare graduates for high-level careers in various areas of biology. The department offers the M.S. degree with the option of selecting from a variety of thesis research topics based on individual research interests of the faculty.

#### Departmental Admission Requirements for the M.S. Degree

Guidelines for full admission into the program requie that one of the following two requirements be met:

- 1. A minimum overall undergraduate grade-point average of 3.0 (on a 4-point scale) OR an undergraduate grade-point average of 3.0 in all Biology, Wildlife Fisheries Science, and related courses.
- 2. Combined Quantitative and Verbal Revised GRE score totaling 300, and a minimum Analytical Writing score of 3.0.

Applicants that do not meet either of these guidelines can be considered for provisional admission through an appeal to the Graduate Policies Committee within the Department of Biology.

In addition to meeting the GPA or GRE requirements, a student will not be admitted without being accepted by a faculty advisor (Advisor Acceptance Form). The advisor will serve as the student's thesis advisor during the student's pursuit of the graduate degree.

Applicants should be aware that meeting these minimum requirements does not guarantee admission to the program, since:

- The Department may not be able to financially support the research of the student, regardless of whether or not a student receives a stipend in the form of teaching or research assistantship. Additional resources must be provided to Biology graduate students in order to conduct their thesis research. The cost to conduct graduate research in the Department of Biology varies widely between and within disciplines and is affected by factors such as:
  - a. whether the study will be conducted in a laboratory or the field (or both);
  - b. whether or not specialized equipment is required;
  - c. the amount of travel that may be necessary;
  - d. wages of full-time or part-time assistants
- 2. The Department may have more students than the faculty can reasonably guide. Prospective Biology graduate students should contact a potential faculty advisor in their research area prior to applying for admission. A student will not be admitted without being accepted by a faculty advisor (Advisor Acceptance Form). The advisor will serve as the student's thesis advisor during the student's pursuit of the graduate degree. Acceptance of a student by the faculty advisor is dependent upon:
- a. similarity of research interests;
- b. experience;
- c. recommendations;
- d. admission standards;
- e. number of graduate students that the faculty member is currently advising;
- f. available funding for research.

Although the Department of Biology has no strict deadlines for application, complete applications for students being considered for teaching assistantships should be received no later than November 1 for enrollment the following Spring Semester, and April 1 for enrollment the following Fall Semester. Applicants being considered for research assistantships will be evaluated as extramural funding becomes available.

For more detailed requirements and thesis research options, contact the department chair.

#### Provisional Admission Procedures

Students who do not meet departmental GPA and GRE<sup>®</sup> General Test (GRE) requirements can be admitted provisionally by appealing the initial rejection decision to the Department of Biology Graduate Policies Committee. This committee will only consider appeals that are presented by the applicant's potential faculty advisor. Criteria commonly used by the Graduate Policies Committee regarding appeals are previous experience in the area of research and work history following graduation. Absolute minimum requirements for appeal consideration will consist of a minimum overall undergraduate grade point average of 2.5 (minimum requirement of Graduate School for non-provisional admission).

The Graduate Policies Committee will make the final decision for all appeals.

#### Provisional Status Requirements

All applicants who do not meet the minimum requirements established for admission to the Master of Science Program within the Department of Biology, and who are granted an appeal by the Department of Biology Graduate Policies Committee, will be admitted with provisional standing. Provisions for achieving full standing will be determined by the Graduate Policies Committee in consultation with the student's faculty advisor and departmental chair.

# **Department of Chemistry**

## **Department of Chemistry**

• Department of Chemistry Information

Jeffrey O. Boles, Chairperson

Departmental Graduate Faculty: Jeffrey O. Boles, Jesse D. Carrick, Andrew Callender, William Carroll, Amanda J. Carroll, Derek J. Cashman, David J. Crouse, Dale Ensor (emeritus), Wilson Gichuhi, Robert J. Glinski, Cory Hawkins, Zachary Holden, Xiaohua Jiang, Edward C. Lisic, Twanelle Deann Walker Majors, Jonathan Moldenhaur, Philip B. Oldham, Chad E. Rezsnyak, Daniel J. Swartling, Martha Wells, Tao Yu, Xuanzhi Zhang, Hong Zhang

# **Master of Science**

# Chemistry, M.S.

**Chemistry Program Information** 

#### Degree Requirements

- Core Required Courses: 9 hours
- Advanced Electives: 12 hours
- Additional Electives: 9 hours
- Total: 30 hours

The program of study for the M.S. in Chemistry includes satisfactory completion of a thesis, and coursework as detailed below:

## **Required Core**

## Seminars (2 hours)

- CHEM 6910 Chemistry Literature Seminar Cr. 1.
- CHEM 6911 Chemistry Thesis Seminar Cr. 1.

### Research & Thesis (6 hours)

• CHEM 6990 - Research and Thesis Cr. 1-9. (6 hours required)

#### Directed Studies (1 hour)

• CHEM 6900 - Directed Studies in Chemistry Cr. 1.

#### Note:

CHEM 6900 (Directed Studies) includes a comprehensive oral examination administered by the student's graduate committee.

## Advanced Electives (12 hours)

Advanced Electives may be selected from any coursework that meets the department's expectations, based on the student's Program of Study and in consultation with the student's graduate committee and the program academic advisor.

• Any CHEM 6000 OR 7000 LEVEL OR EVS 7000 LEVEL

## Additional Electives (9 hours)

Additional Electives may be selected from any coursework that meets the department's expectations, based on the student's Program of Study and in consultation with the student's graduate committee and the program academic advisor.

• Any CHEM 5000 OR 6000 Level

## Total Degree Requirements: 30 hours

## **Department of Chemistry Information**

#### **Departmental Overview**

The Department of Chemistry offers a program of study leading to an M.S. in Chemistry designed to prepare graduates for a successful career in industry or to continue their education in a doctoral program or professional school. By offering courses in the five (5) major areas of chemistry, the students have an opportunity to reinforce their background and expand their knowledge in areas not covered by their undergraduate degree. The faculty maintains a wide variety of research programs, which gives each student a chance to conduct, evaluate, and report on original research. A low student-to-faculty ratio allows for individual attention and produces a stimulating intellectual atmosphere conducive to learning.

#### Fast-Track M.S. Program

The Fast-Track M.S. Chemistry program is designed for chemistry majors in the A.C.S.-certified concentration, enabling them to earn the M.S. degree in Chemistry by staying at Tech one (1) additional academic year and two (2) summers. A senior who opts for the fast-track program will take nine (9) hours graduate coursework as a senior. These hours can include either 4000/5000 dually-listed chemistry courses taken at the 5000-level OR can include 6000-level chemistry and 7000-level environmental science courses. Up to six (6) hours of this graduate coursework, exclusive of directed study, taken during the student's senior year can be used to satisfy both undergraduate and graduate degree requirements. These courses must be taken at Tennessee Tech University and must be approved as appropriate substitutions in the undergraduate curriculum for senior CHEM electives. The admission requirements are:

- 1. Subject to approval by the chair and the chemistry graduate committee
- 2. Overall GPA = 2.8 or above, 3.0 or above in upper-division chemistry courses
- 3. Application allowed once Junior Standing is earned
- 4. Can begin Fast-Track Program as a Senior
- 5. Final B.S. must include a minimum of:
  - two (2) semesters of calculus
  - two (2) semesters each of general, organic, and physical chemistry
  - one (1) semester each of analytical chemistry and biochemistry

Entrance to the Fast-Track program can be granted if the student has met requirements 1 and 2 above.

TTU seniors who do not fully qualify for the Fast-Track program but who plan to seek an M.S. Chemistry degree at TTU may take up to nine (9) graduate-level coursework hours as a senior. Subject to instructor approval, these hours can include either 4000/5000 dually listed chemistry courses taken at the 5000-level OR can include 6000-level chemistry and 7000-level environmental science courses. Up to six (6) hours of this graduate coursework taken during the student's senior year can be used to satisfy both undergraduate and graduate degree requirements.

# **Chemistry Program Information**

#### **Departmental Admission Requirements**

Students seeking admission to full standing in the M.S. program in Chemistry are required to have a Bachelor's degree in Chemistry that has been certified by the American Chemical Society or course work equivalent to this degree, with an undergraduate GPA of at least 2.5 on a 4.0 scale. Applicants lacking prerequisite coursework may be admitted to provisional standing and required to pass the prerequisite coursework before being admitted to full standing.

Applicants with an undergraduate GPA less than 3.0 and an application packet (including a statement of purpose and letter of recommendation) that does not demonstrate a strong justification for admission may be required to take the general portion of the GRE General Test (GRE). To be admitted to full standing an applicant must score at least 300 (Quantitative and Verbal combined) on the GRE General Test, and at least 3.5 on the Analytical Writing portion. An applicant with an undergraduate GPA of less than 3.0 who does not submit GRE scores, or whose scores do not meet the requirements, may still be considered for admission, if the applicant has demonstrated outstanding potential for advanced study and research through research or work experience. Applicants with an undergraduate GPA greater than 3.0 MAY submit GRE scores, but the GRE is not required.

All students must submit a short (2-3 page) "Statement of Purpose". The "Statement of Purpose" must address skills and achievements from previous academic, research, or industrial experience, and must identify specific research topics of interest to pursue at TTU. Applicants will not be considered without a Statement of Purpose. The statement of purpose is reviewed as a criterion for admission, a generic statement of purpose is discouraged.

All students must supply at least one letter of recommendation from a work or research supervisor or mentor in a STEM discipline or enterprise.

International students are required to demonstrate competency in spoken and written English by taking appropriate standardized tests. Common examples include TOEFL examination (minimum score of 550 for the paper-based test or 79 for the Internet-based test with no sub score below 20) and the IELTS examination (minimum score 6.0)

# **English Program Information**

- Departmental Overview
- Concentrations
- BA/MA Fast Track English
- Departmental Admission Requirements
- Evaluation Criteria
- Departmental Degree Requirements by Concentration

#### **Departmental Overview**

The Master of Arts degree program in the Department of English prepares graduates for success in any further graduate and professional education which might require superior analytical and communication skills. It prepares them for Ph.D. programs in English by increasing their knowledge of literary history and improving their skills in writing, literary analysis, and research. Graduates can become effective high-school or college-level teachers by improving their knowledge of writing pedagogy and theory. They will also be prepared for careers outside the academic world wherever superior analytical and communication skills and knowledge of literary and cultural traditions are essential.

#### **Concentrations**

**Literature:** This concentration is designed for graduate students wishing to further develop their abilities as literary scholars and critics, in preparation for graduate school and/or careers requiring high-level interpretive and written communication skills.

**Creative Writing:** This concentration is a great option for graduate students wishing to develop their abilities as creative writers in poetry, fiction, and/or essay/memoir. Graduates in this degree concentration will develop exceptional creative and communication skills, applicable to a variety of career uses, as well as for artistic development.

**Professional and Technical Communication:** This concentration was created for graduate students who are preparing for careers within the field of Professional and Technical Communication. Students will have opportunities to work with other disciplines (such as Engineering, Business, Nursing, and Law), both on campus and off campus, that require facility with technical writing and effective communication skills in business environments. Additionally, this concentration provides opportunities for students with various backgrounds who are seeking advanced skills in grant writing, technical writing, or other advanced Professional and Technical Communication proficiency's.

#### **BA/MA Fast Track - English**

The Fast Track program is designed to enable undergraduates to accumulate up to six (6) credit hours of graduate coursework, to satisfy both undergraduate and graduate degree requirements, while still pursuing their undergraduate degree. The coursework would enable an efficient graduate program transition with the potential for accelerated completion. The courses must be taken at Tennessee Tech University. (Students who reach the number of credits required for their undergraduate degrees can also take additional courses for graduate credit before graduation, thus potentially accelerating their M.A. program even more.)

The minimum admission requirements for participating in the English Fast Track Program are:

- Enrollment as a TTU undergraduate English major with at least 90 hours of completed courses within their program of study;
- Completion of ENGL 3000;
- Overall GPA of 3.25 or better; GPA in 3000-level and above English coursework of 3.5 or better;
- Recommendation from the student's undergraduate advisor;
- Course approval from course professor and graduate faculty advisor;
- In addition to the requirements for admission to the Fast Track BA/MA program, all requirements for admission to the graduate program must also be met upon graduation. Meeting these minimum requirements does not guarantee admission to the graduate program.

#### **Departmental Admission Requirements**

- All applicants submit a statement of purpose. The statement of purpose should be no longer than two pages and include the following information:
  - o Description of the skills and qualities the candidate brings to the program
  - o Candidate's motivation for obtaining an MA in English
  - Candidate's long-term goals in seeking an MA in English and how the MA in English contributes to the achievement of those goals
- If the applicant is applying for a Teaching Assistantship, the candidate should us this statement to address the candidate's teaching interests and how the teaching assistantship contributes to the applicant's overall goals.

#### **Evaluation Criteria**

The Graduate Committee will evaluate each application using the following criteria:

Transcript; based on QPA in all English courses at the 2000+ level	2.7 - 2.999	10 Pt's.
	3.0 - 3.499	20 Pt's.
	3.5 - 4.0	30 Pt's.
Statement of Purpose	7-8	5 Pt's.
	9-10	10 Pt's.
	11-12	20 Pt's.
	13-15	30 Pt's.
Writing Sample Score:	7-8	5 Pt's.
	9-10	10 Pt's.
	11-12	20 Pt's.
	13-15	30 Pt's.

The Graduate Committee shall admit to the program those students whose applications (based on the Evaluation Criteria above) either:

- earn a minimum of 10 points each in the Transcript, Writing Sample, and statement of purpose
- OR have a total score of 35 points or higher regardless of their distribution.

For full consideration, applicants for fall admission must submit all application materials by May 1 and applicants for spring admission must submit all materials by November 1. We encourage early application: graduate teaching assistantships are limited in number and will be awarded on a competitive basis.

#### **Departmental Degree Requirements by Concentration**

The Master of Arts degree program in English has both thesis (30 credit hours) and non-thesis (33 credit hours) options. Details about the non-thesis requirements are listed with each concentration below.

All thesis-option students, regardless of concentration, are required to take 6 credit hours of ENGL 6990 and complete all thesis requirements, in addition to the specific course requirements for their respective concentrations. An oral defense is required for all concentrations, and thesis students in the Creative Writing or Professional and Technical Communication concentrations must also complete a written comprehensive exam.

# **Department of Earth Sciences**

## **Department of Earth Sciences**

## Jennette Luna, Interim Chairperson

# Departmental Graduate Faculty: Joseph Asante, Evan A. Hart, Peter Li, Lauren Michel

No graduate degree is offered in Earth Sciences, but courses may be used (with advisory committee approval) as electives in other fields of study.

Students majoring in Earth Sciences may "FastTrack" into the Professional Science Master's in Environmental Informatics program. For information on FastTrack requirements, visit the Professional Science, Environmental Informatics Concentration, P.S.M. catalog page.

# **Department of Foreign Languages**

## **Department of Foreign Languages**

## Mark Groundland, Interim Chairperson

#### Departmental Graduate Faculty: Michael Olsen

No degree is offered in Foreign Languages but courses may be used (with advisory committee approval) as electives in other fields of study.

# **Department of History**

## **Department of History**

#### Kent Dollar, Chairperson

## Departmental Graduate Faculty: Krystal Akehinmi, Arthur Banton, Kent T. Dollar, Allan E. Driggers, Paula K. Hinton, Susan D. Laningham, C. Elizabeth Propes, Jeffery J. Roberts, Troy D. Smith

No degree is offered in History but courses may be used (with advisory committee approval) as electives in other fields of study.

Unless otherwise noted, the courses listed have the prerequisite of 6 semester hours of history or consent of instructor.

# **Mathematics Program Information**

- Departmental Overview
- B.S./M.S. Fast Track Program Mathematics
- Departmental Admission Requirements

#### **Departmental Overview**

The Department of Mathematics offers a comprehensive program leading to a Master of Science degree in Mathematics. The program of study provides suitable preparation for further study at the doctoral level or for a career in teaching, government, or industry. The moderate size of the program encourages faculty-student interaction and allows the student an opportunity to tailor a program of study based on individual background, interest, and goals. Graduate students attend a weekly Graduate Seminar and develop teaching skills through participation in the weekly Teaching Seminar. For more information, please contact the Mathematics Department at (931) 372-3441, or visit the departmental web page at http://www.tntech.edu/math.

#### **B.S./M.S. Fast Track Program - Mathematics**

The Fast Track program is designed to enable promising undergraduate mathematics students at Tennessee Tech to begin their pursuit of a Master's degree in Mathematics during their senior year. Upon admission to the program, up to six (6) hours of graduate mathematics courses taken during the senior year can be used to satisfy both undergraduate and graduate degree requirements (see restrictions below).

To be eligible, a student must have an overall GPA of at least 3.25 and have a "B" or better in all upper division Mathematics courses. Students who meet these minimum requirements may apply to the Mathematics Department for admission to the Fast Track program. The department's graduate committee will review the application and make a decision for approval.

The student must earn a grade of "B" or better in the graduate courses which are "double-counted" to have the credit apply toward the Master's degree. In addition, the following classes re not eligible for Fast Track credit: Math 5010, 5110, 5470, 5530, 5510, 5610, and 5620.

Participation in the Fast Track program does not guarantee admission to the Mathematics graduate program. The student must meet all requirements for admission to the graduate program upon graduation, and must complete the Fast Track program successfully will be given strong consideration for both admission and financial assistance in the graduate program.

#### **Departmental Admission Requirements**

As a necessary condition to be admitted to the Mathematics Graduate Program with Full Standing, and applicant must meet the following minimum requirements:

- 1. successful completion (at least a "C" or better) or at least one semester-long undergraduate course in abstract algebra (MATH 4010 or equivalent)
- 2. successful completion (at least a "C" or better) of at least one semester-long undergraduate courses in real analysis (MATH 4110 or equivalent)
- 3. an overall undergraduate QPA of at least 2.5 (based on a 4.0 scale)
- 4. at least 3 letters of recommendation each indicating an expectation for success in a graduate mathematics program
- 5. (international students only) a TOEFL score of at least 550 or an IELTS score of at least 6.0 or the attainment of level 18 in the FLS international Intensive ESL program
- 6. Demonstrated potential for success in a graduate mathematics program by attaining **at least one** of the following
  - 1. an overall undergraduate mathematics QPA of at least 3.5 (based on a 4.0 scale);

- 2. at least a 140 verbal score, 150 quantitative score, and 3.0 analytical writing score on the GRE General Examination
- 3. at least a 700 on the GRE Subject Test in Mathematics

It should be understood that fulfilling the above minimum requirements is not sufficient to guarantee that an applicant will be admitted with full standing. A student may be admitted to the Mathematics Graduate Program with Provisional Standing if one or more of the above requirements are not met, assuming that the student has an overall undergraduate QPA of at least 2.25 (based on a 4.0 scale) and at least 3 letters of recommendation each indicating and expectation for success in a graduate mathematics program. Recommendations for admission (with Full or Provisional Standing) are made by the Mathematics Department Chairperson in consultation with the Mathematics Graduate Committee based upon an analysis of the applicant's mathematical background and potential for success in the Mathematics Graduate Program. As student in Provisional Standing may be reclassified to Full Standing once the student has satisfied the appropriate requirements detailed in the admission letter.

For the sake of evaluation for an assistantship, applicants are highly encouraged to take both the GRE General Examination and the GRE Subject Test in Mathematics and submit their scores with the application.

# **Department of Mathematics**

## **Department of Mathematics**

Department of Mathematics Web Site

#### Michael Allen, Professor, Interim Chair

Departmental Graduate Faculty: Amy Chambers, Christopher Davis, Andrew Hetzel, Damian Kubiak, Richard C. Le Borne, Yung-Way Liu, Motoya Machida, Alan D. Mills, Brian M. O'Connor, Chudamani Poudyal, Alexander Shibakov, David Smith, Padmini P. Veerapen

# **Master of Science**

# Mathematics, M.S.

Mathematics Program Information

#### Departmental Degree Requirements

Requirements for the M.S. degree in Mathematics are:

## Thesis Option

The M.S. in Mathematics with a Thesis option is a 30 hour degree program. Degree requirements include:

- Core Required Coursework: 6 hours
- Advisor Approved Electives: 6 hours

- Advisor Approved Sequence: 12 hours
- Research and Thesis Requirement: 6 hours
- Total Degree Requirements: 30 hours

At least 21 of the above credit hours must be at the 6000 level.

The following are the core courses and course sequences required for Thesis option:

### Core Required Coursework (6 hours)

- MATH 6110 Abstract Algebra I Cr. 3.
- MATH 6010 Functional Analysis I Cr. 3. OR
- MATH 6410 Real Analysis I Cr. 3. OR
- MATH 6310 Complex Analysis I Cr. 3.

## Advisor Approved Electives (6 hours)

Selection of appropriate MATH advisor approved courses (MATH 5XXX-MATH 6XXX) will be made in consultation with the student's advisory committee and/or graduate coordinator.

## Advisor Approved Sequence (12 hours)

A student may complete a sequence by taking any two of the six courses listed below. A student who takes four of of the six courses listed is considered to have completed two sequences.

- MATH 6510 Finite Difference Solutions of Partial Differential Equations Cr. 3.
- MATH 6520 Finite Element Solutions of Partial Differential Equations Cr. 3.
- MATH 6810 Partial Differential Equations Cr. 3.
- MATH 6530 Integral Equations and Applications Cr. 3.
- MATH 6540 Calculus of Variations and Applications Cr. 3.
- MATH 6610 Operational Mathematics Cr. 3.

#### Student may choose additional sequences from the following list:

- MATH 6010 Functional Analysis I Cr. 3. AND
- MATH 6020 Functional Analysis II Cr. 3.
- MATH 6070 Applied Linear Statistical Methods I Cr. 3. AND
- MATH 6080 Applied Linear Statistical Methods II Cr. 3.
- MATH 6110 Abstract Algebra I Cr. 3. AND
- MATH 6120 Abstract Algebra II Cr. 3.
- MATH 6170 Experimental Design I Cr. 3. AND
- MATH 6180 Experimental Design II Cr. 3.

- MATH 6210 Topology I Cr. 3. AND
- MATH 6220 Topology II Cr. 3.
- MATH 6240 Representations and Characters of Groups I Cr. 3. AND
- MATH 6250 Representations and Characters of Groups II Cr. 3.
- MATH 6310 Complex Analysis I Cr. 3. AND
- MATH 6320 Complex Analysis II Cr. 3.
- MATH 6370 Probability Theory and Stochastic Processes I Cr. 3. AND
- MATH 6380 Probability Theory and Stochastic Processes II Cr. 3.
- MATH 6410 Real Analysis I Cr. 3. AND
- MATH 6420 Real Analysis II Cr. 3.
- MATH 6450 Advanced Theory of Computation Cr. 3. AND
- MATH 6460 Computational Methods for Graphics and Modeling Cr. 3.
- MATH 6910 Special Topics in Mathematics Cr. 3. AND
- MATH 6920 Special Topics in Mathematics Cr. 1-3.

#### Research and Thesis Requirement (6 hours)

• MATH 6990 - Research and Thesis Cr. 3,6.

### Non-Thesis Option

The M.S. in Mathematics in the Non-Thesis program is a 33 hour program. Degree requirements are as follows:

- Core Course Requirements: 6 hours
- Advisor Approved Electives: 6 hours
- Advisor Approved Sequence: 18 hours
- Non-Thesis Project: 3 hours
- Total Degree Requirements: 33 hours

A comprehensive examination on two (2) of the three (3) one-year approved sequences used to fulfill the 18 credit hour requirement. The selection of the two (2) areas of examination will be left to the graduate student and to the graduate student's advisor, subject to the approval of the student's Graduate Advisory Committee. The exam will test both the student's knowledge of the subject areas and ability to independently solve problems and prove theorems.

At least 24 of the 33 hours will be at the 6000 level.

The following are the core courses and course sequences required for the Non-Thesis option:

### Core Required Coursework (6 hours)

• MATH 6110 - Abstract Algebra I Cr. 3.

- MATH 6010 Functional Analysis I Cr. 3. OR
- MATH 6410 Real Analysis I Cr. 3. OR
- MATH 6310 Complex Analysis I Cr. 3.

### Advisor Approved Electives (6 hours)

Selection of appropriate MATH advisor approved courses (MATH 5XXX-MATH 6XXX) will be made in consultation with the student's advisory committee and/or graduate coordinator.

#### Advisor Approved Sequence (18 hours)

A student may complete a sequence by taking any two of the six courses listed below. A student who takes four of of the six courses listed is considered to have completed two sequences.

- MATH 6510 Finite Difference Solutions of Partial Differential Equations Cr. 3.
- MATH 6520 Finite Element Solutions of Partial Differential Equations Cr. 3.
- MATH 6810 Partial Differential Equations Cr. 3.
- MATH 6530 Integral Equations and Applications Cr. 3.
- MATH 6540 Calculus of Variations and Applications Cr. 3.
- MATH 6610 Operational Mathematics Cr. 3.

#### Student may choose additional sequences from the following list:

- MATH 6010 Functional Analysis I Cr. 3. AND
- MATH 6020 Functional Analysis II Cr. 3.
- MATH 6070 Applied Linear Statistical Methods I Cr. 3. AND
- MATH 6080 Applied Linear Statistical Methods II Cr. 3.
- MATH 6110 Abstract Algebra I Cr. 3. AND
- MATH 6120 Abstract Algebra II Cr. 3.
- MATH 6170 Experimental Design I Cr. 3. AND
- MATH 6180 Experimental Design II Cr. 3.
- MATH 6210 Topology I Cr. 3. AND
- MATH 6220 Topology II Cr. 3.
- MATH 6240 Representations and Characters of Groups I Cr. 3. AND
- MATH 6250 Representations and Characters of Groups II Cr. 3.
- MATH 6310 Complex Analysis I Cr. 3. AND
- MATH 6320 Complex Analysis II Cr. 3.
- MATH 6370 Probability Theory and Stochastic Processes I Cr. 3. AND
- MATH 6380 Probability Theory and Stochastic Processes II Cr. 3.

- MATH 6410 Real Analysis I Cr. 3. AND
- MATH 6420 Real Analysis II Cr. 3.
- MATH 6450 Advanced Theory of Computation Cr. 3. AND
- MATH 6460 Computational Methods for Graphics and Modeling Cr. 3.
- MATH 6910 Special Topics in Mathematics Cr. 3. AND
- MATH 6920 Special Topics in Mathematics Cr. 1-3.

#### Non-Thesis Project (3 hours)

• MATH 6991 - Research and Independent Study Cr. 1-3.

# **Department of Physics**

## **Department of Physics**

Stephen J. Robinson, Chairperson

Departmental Graduate Faculty: Paula Engelhardt, Adam T. Holley, Mary Frances Kidd, Raymond L. Kozub, Mustafa Moiz Rajabali, Stephen J. Robinson

No graduate degree is offered in Physics but courses may be used (with advisory committee approval) as electives in other fields of study.

# **Department of Sociology and Political Science**

## **Department of Sociology and Political Science**

#### Lori Maxwell, Chairperson

## Departmental Graduate Faculty: Lauren Howard Harding, Ada Haynes, Lori Maxwell, Gwendolyn Lachelle Norris

No degree is offered in Sociology or Criminal Justice but courses may be used (with advisory committee approval) as electives in other fields of study.

# **College of Business**

# **College of Business**

# Thomas H. Payne, Dean

**Departmental Graduate Faculty:** Robert Alley, , M. Meral Anitsal, Curtis P. Armstrong, Deborah Ballou, Sid Bundy, Ann Davis, Ferdinand **Difurio, Dan Robert Fesler, Steve** Garner, Tor Guimaraes, Alma Hales, Mary Howard, Brian Hugeuenard, Steven Isbell, Brian Jones, Hyewon Park, Wesley Pech, Julie M. Pharr, Rodley Pineda, Richard Rand, Robert Seay, Mark A. Stephens, Thomas Timmerman, Kyle Turner, F. Stuart Wells III, Kenneth Wiant, Robert Willbanks

# **Banking and Financial Services Certificate**

### **Certificate Requirements**

- DS 6530 Advanced Data Analytics Cr. 3.
- DS 6570 Cyber Security Management Cr. 3.
- FIN 6920 Banking and Financial Services Cr. 3.
- MKT 6510 Services Marketing Cr. 3.
- ACCT 4300 (5300) Financial Statement Analysis Cr. 3.

# Business Administration, Agribusiness Certificate, M.B.A.

The Agribusiness Certificate is designed for current or prospective graduate students who have completed a Bachelor of Science degree in Agriculture or related field. The Agribusiness Certificate consists of 15 hours of industry-relevant graduate course credit and may be acquired in conjunction with, or independent from, other graduate credentials- including the Master of Business Administration (MBA). If in conjunction with the MBA, 9 hours of (specifically directed) course credit may be counted toward both the MBA and the Agribusiness Certificate. Students will also have the option to focus their certificate by taking courses in finance and risk management or general agribusiness.

#### **Core Required Courses**

- ACCT 6010 Accounting Information for Management Decisions Cr. 3.
- BMGT 6200 Organizational Leadership Cr. 3.
- BMGT 6950 Business Strategy Cr. 3.
- DS 6220 Management of Information Technology Cr. 3.
- ECON 6050 Analytical Decision Making Cr. 3.
- ECON 6000 Managerial Economics Cr. 3.
- FIN 6020 Financial Management Cr. 3.
- MKT 6100 Strategic Marketing Cr. 3.

## Total Hours for Core Courses: 24

#### Degree Requirements

#### MBA with a Certificate

- Core Required Courses: 21 hours
- Certificate Courses\*: 15 hours
- Total: 36 hours

\*3 out of the 5 Certificate courses count as the 9 credits for the MBA approved electives.

As many as nine (9) semester hours may be transferred from other AACSB accredited schools. Credit will not be allowed for courses taken more than five (5) years prior to application to Tennessee Tech. Enrollment in required common courses requires the approval of the MBA Director. All core courses should be complete prior to any 6000-level work.

Note: Participants from the Graduate School of Banking at LSU or the Barrette School of Banking may, upon approval, substitute 6 hours of course credit towards the TTU MBA program.

#### **Certificate Requirements**

The Agribusiness Certificate allows the student to choose one of two focus areas: Finance and Risk Management; or General Agribusiness.

#### Finance and Risk Management Focus

- AGBE 4110(5110) Agricultural Futures Marketing and Options Cr. 3
- AGBE 5400 Agricultural Finance Cr. 3
- ACCT 4300 (5300) Financial Statement Analysis Cr. 3.
- FIN 6920 Banking and Financial Services Cr. 3. Plus 3 credit hours of graduate agricultural coursework

#### **General Agribusiness Focus**

- ECON 4120(5120) Natural Resource Economics Cr. 3
- AGBE 4130(5130) Agricultural Policy Cr. 3 or
- AGBE 4200(5200) Agribusiness Statistics Cr. 3.
- AGBE 5400 Agricultural Finance Cr. 3 Plus 3 credit hours of MBA economics coursework Plus 3 credit hours of agricultural graduate coursework

# Business Administration, Cyber Management and Analytics Certificate, M.B.A.

Business Administration Program Information

#### **Degree Requirements**

#### **MBA** with a Certificate

- Core Required Courses: 21 hours
- Certificate Courses\*: 15 hours
- Total: 36 hours

\*3 out of the 5 Certificate courses count as the 9 credits for the MBA approved electives.

As many as nine (9) semester hours may be transferred from other AACSB accredited schools. Credit will not be allowed for courses taken more than five (5) years prior to application to Tennessee Tech. Enrollment in required common courses requires the approval of the MBA Director. All core courses should be complete prior to any 6000-level work.

Note: Participants from the Graduate School of Banking at LSU or the Barrette School of Banking may, upon approval, substitute 6 hours of course credit towards the TTU MBA program.

#### **Core Required Courses**

- ACCT 6010 Accounting Information for Management Decisions Cr. 3.
- BMGT 6200 Organizational Leadership Cr. 3.
- BMGT 6950 Business Strategy Cr. 3.
- DS 6220 Management of Information Technology Cr. 3.
- ECON 6050 Analytical Decision Making Cr. 3.
- ECON 6000 Managerial Economics Cr. 3.
- FIN 6020 Financial Management Cr. 3.
- MKT 6100 Strategic Marketing Cr. 3.

## Total Hours for Core Courses: 24

#### **Certificate Requirements**

- DS 6540 Network Security Cr. 3.
- DS 6570 Cyber Security Management Cr. 3.
- DS 6550 Database Management Cr. 3.
- EMGT 6210 Project Management 1 Cr. 3. OR
- MAcc students ACCT 6290 Essential Tech for Accountants Cr. 2.
- DS 6530 Advanced Data Analytics Cr. 3.

## Total Hours: 14 or 15

# Business Administration, Financial Services Certificate, M.B.A.

Business Administration Program Information

#### Degree Requirements

#### **MBA** with a Certificate

- Core Required Courses: 21 hours
- Certificate Courses\*: 15 hours
- Total: 36 hours

\*3 out of the 5 Certificate courses count as the 9 credits for the MBA approved electives.

As many as nine (9) semester hours may be transferred from other AACSB accredited schools. Credit will not be allowed for courses taken more than five (5) years prior to application to Tennessee Tech. Enrollment in required common courses requires the approval of the MBA Director. All core courses should be complete prior to any 6000-level work.

Note: Participants from the Graduate School of Banking at LSU or the Barrette School of Banking may, upon approval, substitute 6 hours of course credit towards the TTU MBA program.

#### Core Required Courses

- ACCT 6010 Accounting Information for Management Decisions Cr. 3.
- BMGT 6200 Organizational Leadership Cr. 3.
- BMGT 6950 Business Strategy Cr. 3.
- DS 6220 Management of Information Technology Cr. 3.
- ECON 6050 Analytical Decision Making Cr. 3.
- ECON 6000 Managerial Economics Cr. 3.
- FIN 6020 Financial Management Cr. 3.

• MKT 6100 - Strategic Marketing Cr. 3.

## Total Hours for Core Courses: 24

#### **Certificate Requirements**

- DS 6540 Network Security Cr. 3.
- DS 6570 Cyber Security Management Cr. 3.
- FIN 6920 Banking and Financial Services Cr. 3.
- MKT 6510 Services Marketing Cr. 3.
- ACCT 4300 (5300) Financial Statement Analysis Cr. 3.

## Total Hours: 15

# Business Administration, Health Care Informatics Certificate, M.B.A.

Business Administration Program Information

#### Degree Requirements

#### **MBA** with a Certificate

- Core Required Courses: 21 hours
- Certificate Courses\*: 15 hours
- Total: 36 hours

\*3 out of the 5 Certificate courses count as the 9 credits for the MBA approved electives.

As many as nine (9) semester hours may be transferred from other AACSB accredited schools. Credit will not be allowed for courses taken more than five (5) years prior to application to Tennessee Tech. Enrollment in required common courses requires the approval of the MBA Director. All core courses should be complete prior to any 6000-level work.

Note: Participants from the Graduate School of Banking at LSU or the Barrette School of Banking may, upon approval, substitute 6 hours of course credit towards the TTU MBA program.

#### Core Required Courses

- ACCT 6010 Accounting Information for Management Decisions Cr. 3.
- BMGT 6200 Organizational Leadership Cr. 3.
- BMGT 6950 Business Strategy Cr. 3.
- DS 6220 Management of Information Technology Cr. 3.
- ECON 6050 Analytical Decision Making Cr. 3.
- ECON 6000 Managerial Economics Cr. 3.
- FIN 6020 Financial Management Cr. 3.
- MKT 6100 Strategic Marketing Cr. 3.

## Total Hours for Core Courses: 24

#### **Certificate Requirements**

- DS 6900 Special Topics Cr. 3.
- DS 6570 Cyber Security Management Cr. 3.
- ECON 6900 Special Topics Cr. 3.
- EMGT 6210 Project Management 1 Cr. 3.
- PRST 6570 Public Health Cr. 3.
  \*PRST 6570 is an MPS course. PRST 6570 only counts as a certificate course and not an MBA elective.

## Total Hours: 15

# **Business Administration, M.B.A.**

Business Administration Program Information

#### **Degree Requirements**

As many as nine (9) semester hours may be transferred from other AACSB accredited schools. Credit will not be allowed for courses taken more than five (5) years prior to application to Tennessee Tech. Enrollment in required common courses requires the approval of the MBA Director. All core courses should be complete prior to any 6000-level work.

#### MBA

- Core Required Courses: 24 hours
- Advisor Approved Electives: 6 hours
- Total: 30 hours

#### **Core Required Courses**

- ACCT 6010 Accounting Information for Management Decisions Cr. 3.
- BMGT 6200 Organizational Leadership Cr. 3.
- BMGT 6950 Business Strategy Cr. 3.
- DS 6220 Management of Information Technology Cr. 3.
- ECON 6050 Analytical Decision Making Cr. 3.
- ECON 6000 Managerial Economics Cr. 3.
- FIN 6020 Financial Management Cr. 3.
- MKT 6100 Strategic Marketing Cr. 3.

## Total Hours for Core Courses: 24

#### Elective Courses

Two (2) courses/six (6) semester hours must be selected based on the student's chosen curriculum, from the following courses:

- ACCT 4600 (5600) Forensic Accounting and Fraud Accounting Cr. 3.
- ACCT 4300 (5300) Financial Statement Analysis Cr. 3.
- ACCT 4320 (5320) Advanced Managerial Accounting Cr. 3.
- ACCT 4700 (5700) International Experience in Accounting Cr. 3.
- ACCT 6220 Auditing and Attestation Cr. 3.
- ACCT 6900 Special Topics Cr. 3.
- ACCT 4900 (5900) Special Topics in Accounting Cr. 3.
- BMGT 6900 Special Topics Cr. 3.
- DS 4125 (5125) Computer Forensics and Investigations Cr. 3
- DS 4900 (5900) Special Topics in Decision Sciences Cr. 1-3.
- DS 6530 Advanced Data Analytics Cr. 3.
- DS 6540 Network Security Cr. 3.
- DS 6550 Database Management Cr. 3.
- DS 6900 Special Topics Cr. 3.
- Econ 4200 (5200) Environmental Economics Cr. 3
- ECON 4310 (5310) Labor Economics Cr. 3.
- ECON 4510 (5510) International Trade and Finance Cr. 3.
- ECON 4520 (5520) Comparative Economic Systems Cr. 3.
- ECON 4530 (5530) History of Economic Thought Cr. 3.
- ECON 4600 (5600) Economic Growth & Development Cr. 3.
- ECON 4900 (5900) Contemporary Economics Workshop Cr. 1-6.
- ECON 4640 (5640) Econometrics Cr. 3.
- ECON 6900 Special Topics Cr. 3.
- ECON 6920 International Economics Cr. 3.
- FIN 6350 Small and Micro-Cap Portfolio Management Cr. 3.
- FIN 6900 Special Topics Cr. 3.
- FIN 6910 Multinational Finance Cr. 3.
- LAW 6450 Organizational Ethics Cr. 3.
- MBA 6830 Business Consulting and Research Cr. 3.
- MBA 6840 Field Research Project Cr. 1-3.
- MBA 6980 International Experience Cr. 3.
- MKT 6500 Advanced Marketing Analysis Cr. 3.
- MKT 6630 Entrepreneurship and Small Business Management Cr. 3.
- MKT 6900 Special Topics Cr. 3.
- MKT 6930 International Marketing Cr. 3.

#### Total hours: 30

# Business Administration: Healthcare Informatics Certificate for MBA Students

#### **Certificate Requirements**

• DS 6900 - Special Topics Cr. 3.

- DS 6570 Cyber Security Management Cr. 3.
- ECON 6900 Special Topics Cr. 3.
- EMGT 6210 Project Management 1 Cr. 3.
- PRST 6570 Public Health Cr. 3. \*PRST 6570 is an MPS course. PRST 6570 only counts as a certificate course and not an MBA elective.

# **Cyber Management and Analytics Certificate**

#### **Certificate Requirements**

- DS 6530 Advanced Data Analytics Cr. 3.
- DS 6540 Network Security Cr. 3.
- DS 6550 Database Management Cr. 3.
- DS 6570 Cyber Security Management Cr. 3.
- EMGT 6210 Project Management 1 Cr. 3. or for MAcc students
- ACCT 6290 Essential Tech for Accountants Cr. 2.

## Master of Accountancy, M.Acc.

Accountancy Program Information

#### **Degree Requirements**

The 30-credit hour MAcc program was designed with two options, a 1-year track and a 2-year track. Due to the importance of completing the degree in a timely fashion and time limits established by the Tennessee Society of CPA's for completing the CPA Exam, it is important that the discipline of either a 1-year or 2-year timeline be imposed on applicants. The disciplined time-line will also contribute to lowering the attrition rate and increasing the likelihood of graduation.

The MAcc is a 100% online program with limited face-to-face interaction. While the coursework will be online, there is a provision in the program for two residency experiences. These residency experiences will be required components of the program and, combined with the online pre-work, will count for 1 credit hour each. Students will attend two live weekend sessions that will include group project work, group presentations, seminars and networking opportunities. The residency experiences will also provide vital "touch points" in the program that will allow students and faculty to communicate in a one-on-one exchange of thoughts and ideas related to the program and course materials.

The following are the MAcc degree requirements:

- Core Required Courses: 24 hours
- Advisor Approved Electives: 6 hours
- Total Degree Requirement: 30 hours

## Core Course Requirements (24 hours)

The following courses are required as part of the MAcc degree program:

- ACCT 6210 Corporate Tax Management and Research Cr. 3.
- ACCT 6220 Auditing and Attestation Cr. 3.

- ACCT 6231 Professional Certification: Business Environment and Concepts Cr. 1.
- ACCT 6232 Professional Certification: Audit Cr. 1.
- ACCT 6233 Professional Certification: Regulation Cr. 1.
- ACCT 6234 Professional Certification: Financial Accounting and Reporting Cr. 1.
- ACCT 6240 Ethics and the Professional Code of Conduct Cr. 1.
- ACCT 6250 Governmental and Not-for-Profit/Healthcare Accounting Cr. 3.
- ACCT 6260 Tax Management of Flow-Through Entities and Strategy Cr. 3.
- ACCT 6270 Advanced Financial Accounting Cr. 3.
- ACCT 6281 Professional Development I Cr. 1.
- ACCT 6282 Professional Development II Cr. 1.
- ACCT 6290 Essential Tech for Accountants Cr. 2.

## Advisor Approved Electives (6 hours)

The advisor will approve six hours of elective credit. Students may use any 5000-level or 6000-level course offered by the College of Business, except ACCT6010, which cannot be used as a MAcc elective.

#### One and Two Year Completion Pathways

As stated earlier, the MAcc program is designed to provide two pathways for students to take in order to meet the student's academic goals and to fulfill the requirements of the CPA examination timelines. The following is the academic plan for each pathway:

## 1-Year Completion Pathway

#### Fall Term

- ACCT 6210 Corporate Tax Management and Research Cr. 3.
- ACCT 6220 Auditing and Attestation Cr. 3.
- ACCT 6231 Professional Certification: Business Environment and Concepts Cr. 1.
- ACCT 6240 Ethics and the Professional Code of Conduct Cr. 1.
- ACCT 6281 Professional Development I Cr. 1.
- Graduate Elective Cr. 3. \*

#### Spring Term

- ACCT 6260 Tax Management of Flow-Through Entities and Strategy Cr. 3.
- ACCT 6270 Advanced Financial Accounting Cr. 3.
- ACCT 6232 Professional Certification: Audit Cr. 1.
- ACCT 6233 Professional Certification: Regulation Cr. 1.
- ACCT 6282 Professional Development II Cr. 1.
- Graduate Elective Cr. 3. \*

#### Summer Term

• ACCT 6250 - Governmental and Not-for-Profit/Healthcare Accounting Cr. 3.

• ACCT 6234 - Professional Certification: Financial Accounting and Reporting Cr. 1.

## 2-Year Completion Pathway

#### 1st Fall Term

- ACCT 6210 Corporate Tax Management and Research Cr. 3.
- Graduate Elective Cr. 3. \*

#### 1st Spring Term

- ACCT 6260 Tax Management of Flow-Through Entities and Strategy Cr. 3.
- Graduate Elective Cr. 3. \*

#### 1st Summer Term

- ACCT 6290 Essential Tech for Accountants Cr. 2.
- ACCT 6233 Professional Certification: Regulation Cr. 1.

#### 2nd Fall Term

- ACCT 6220 Auditing and Attestation Cr. 3.
- ACCT 6231 Professional Certification: Business Environment and Concepts Cr. 1.
- ACCT 6240 Ethics and the Professional Code of Conduct Cr. 1.
- ACCT 6281 Professional Development I Cr. 1.

#### 2nd Spring Term

- ACCT 6270 Advanced Financial Accounting Cr. 3.
- ACCT 6232 Professional Certification: Audit Cr. 1.
- ACCT 6282 Professional Development II Cr. 1.

#### 2nd Summer Term

- ACCT 6250 Governmental and Not-for-Profit/Healthcare Accounting Cr. 3.
- ACCT 6234 Professional Certification: Financial Accounting and Reporting Cr. 1.

# **Business Administration Program Information**

#### <u>Overview</u>

#### MBA Website

The Tennessee Tech MBA is fully accredited by AACSB International--the highest attainable level of accreditation. The MBA degree may be obtained completely online or through a combined online/on-campus program of study.

The MBA program offers the option for 100% online completion, in as little as one year. The online learning environment is highly interactive and incorporates case discussions, teamwork, simulations, and other active-learning approaches. MBA courses make a strong connection between academic subjects and the practical issues facing managers in today's globally competitive, high tech, and analytically-focused business environment.

#### MBA Admission Requirements

Tennessee Tech's AACSB-accredited Master of Business Administration (MBA) program maintains an admission process that considers applicants' total academic and work-life achievements. Admission is open to qualified students with a bachelor's degree from a regionallyaccredited institution. No GMAT or GRE test score is required to apply. Applications are accepted for fall, spring, and summer semester admission. Application deadlines are listed on the University's Graduate Studies webpage.

To Apply: Visit the online application portal Apply Here, create an account, complete the application, and upload the following required documents

• A current resume, containing dates for all work experience and degrees received.

• Official transcripts from all institutions where classes were taken and/or a degree received. Factors that may be considered in the admission decision are:

- Undergraduate GPA\*
- Professional Work Experience<sup>†</sup>
- Graduate Degrees and Relevant Achievements<sup>1</sup>

<sup>†</sup>Professional work experience is post-undergraduate professional or military experience and should be described on the applicant's resume.

<sup>1</sup>Graduate degrees (e.g., MD, JD, MS, MA, PharmD, etc.) should be documented on the applicant's transcript(s) and denoted on the resume.

Timely application is important. Applicants are advised to submit their completed application and all required documentation early to be given full consideration for upcoming semesters. Visit the Graduate Admissions Calendar for a complete list of application deadlines.

Important to Note: Additional information is required by Graduate Studies for international students (see Graduate Studies website). A score of 550 (79 internetbased) on the TOEFL or a band score of 6.0 on the IELTS is required for all students whose native language is other than English. Students must be proficient in the use of word processing, spreadsheet, and presentation software including the integration of all three of the above.

#### Academic Background

The Tennessee Tech MBA welcomes applicants from all academic majors. An undergraduate business degree or prerequisite business courses are not required to be admitted to the program. In lieu of prerequisite coursework, the program provides a self-paced orientation experience that allows students to start the MBA with foundational knowledge. Further details about orientation arrive to accepted students in their admissions information packet.

#### **Standing Upon Admission**

Students may be admitted in Full Standing or with Provisional Standing. Admission in Full gives students the greatest flexibility in taking MBA courses. Students admitted provisionally must take ECON 6050 within the first nine (9) hours of their program and maintain a 3.0 GPA on the first nine (9) hours of MBA core content completed. Upon meeting these requirements, the provisional student will be moved to Full Standing.

#### **Fast Track Program**

Fast Track allows selected undergraduates to enroll for up to six (6) hours of graduate courses that will count at both the undergraduate and graduate level prior to formal admission to the MBA program. Once admitted to Fast Track, the student will be allowed to enroll in appropriate MBA courses in the senior year with the consent of the student's undergraduate advisor and the director of Graduate Business Programs. Participation does not change the requirements for the student's undergraduate or MBA program.

#### Admission to Fast-Track

Minimum requirements for admission are:

- 90 hours of undergraduate work or senior standing and successful completion of any required prerequisites
- Recommendation of a faculty member in the student's major
- Overall GPA of 3.2 and GPA of 3.2 in the student's major
- Program participants should consult with their future MBA advisor regarding appropriate graduate courses to take during their senior year.
- All requirements for full admission to Graduate School must be met upon graduation.
- Students who do not receive a grade of B or better in the fast-tracked course will be advised to withdraw from the Fast Track program and complete their B.S. degree as normal.

Fulfilling the above minimum requirements does not guarantee acceptance into the Master of Business Administration Fast Track program or the MBA program. Students who meet the above minimum requirements must consult with the College of Business for eligibility and acceptance.

#### MBA Program

#### MBA Program Website

The MBA program requires no prerequisites and is designed for college graduates regardless of major. In all organizations, career success and advancement requires knowledge of finance, marketing, accounting, information technology, analytics, and management. In addition, the teamwork, leadership, technological and communication skills along with the networking opportunities provided throughout the MBA experience add value for full time students, working professionals, and their current employers.

The Tennessee Tech MBA is a 30-hour program. It consists of eight 3-hour core courses (24 credit hours) and two 3-hour general electives (6 credit hours). Full-time students can complete the program in one (1) calendar year. Part-time students take courses at their preferred pace, often taking only one or two courses per term. Students have up to six (6) years to complete the program.

The MBA core consists of eight 3-hour common courses:

-Economics 6000 (ECON6000) -- Managerial Economics

-Accounting 6010 (ACCT6010) - Accounting Information for Management Decisions

-Finance 6020 (FIN6020) – Financial Management

-Economics 6050 (ECON6050) - Analytical Decision Making

-Marketing 6100 (MKT6100) – Strategic Marketing

-Business Management 6200 (BMGT6200) - Organizational Leadership

-Decision Sciences 6220 (DS6220) - Management of Information Technology

-Business Management 6950 (BMGT6950) - Business Strategy

The core courses provide technical and contextual knowledge as they develop students' managerial competence. In addition to assuring a working knowledge of primary business functions, these career-relevant courses provide opportunities to work individually and in teams through a variety of case studies, simulations, and research projects. The six (6) credit hours of electives are used to develop special competencies of interest to the student.

#### **Certificate Tracks**

For an additional 6-9 hours beyond the 30-hour MBA, interested students can add an industry-focused Graduate Certificate. There are four certificate options: -Banking & Financial Services. -Cyber Management & Analytics -Health Care Informatics -Agribusiness

Each certificate requires 15 hours of directed electives. For more information on electives that comprise each certificate, see Industry-Focused Certificates on the MBA website. Students may apply the six hours of electives that are part of the MBA toward a certificate then add on the additional courses to complete the certificate.

#### **Quality of Work**

An MBA student is required to maintain a cumulative grade average of at least B (3.0) on all courses taken for degree purposes, and must achieve a grade of B or better in BMGT 6950. Students must repeat BMGT 6950 until a grade of B or better is obtained. Other courses may be repeated at the discretion of the student, and both the original grade and the grade for the repeat will be counted in the cumulative average. Any student receiving a D or an F in an MBA degree course shall be dismissed from the program.

## **Accountancy Program Information**

- Departmental Mission
- Departmental Admission Requirements
- Fast Track Program
- Minimum Retention Requirements
- Probation for Unsatisfactory Performance

Dr. Julie Pharr, Assistant Dean of Graduate Business Programs

Dr Richard Rand, Accounting Department

#### **Departmental Mission**

The Department holds separate AACSB Accounting Accreditation. Accordingly, our mission is "to graduate students characterized by a commitment to professional competence, ethical conduct, excellent communication skills, and critical thinking." Toward that end, we strive to provide students access to advanced knowledge in the field of accounting and we emphasize the importance of life-long learning and continuing professional development.

We strive to adhere to a set of values that embraces our commitment to a standard of excellence. Those values include:

- Integrity
- Professionalism
- Diversity of Thought
- Excellence
- Team Collaboration

The purposes of the MAcc Program at TTU include delivery of: (1) strong, masters-level education that provides accounting students with advanced academic knowledge, requisite professional skills, and a relevant, high-quality pathway to the profession and associated certifications", (2) high-quality programming that facilitates students' development and growth as successful, ethical business leaders, (3) appropriate graduate-level degree programming to meet the needs of aspiring professional accountants and their prospective employers that is not currently available to TTU accounting graduates, and (4) using online and associated technologies to increase Tennesseans' access to graduate accounting education.

#### **Departmental Admission Requirements**

#### Master of Accountancy Website

Tennessee Tech's AACSB-accredited Master of Accountancy (MAcc) program maintains an admission process that considers applicants' total academic and work-life achievements. The Master of Accountancy does not require the GMAT or GRE for admission to the program.

Pre-Requisites: Applicants must have an undergraduate degree in business with a major in Accounting (or the equivalent) from an accredited school or university, or be in their final semester of undergraduate coursework. Accounting major equivalency can be achieved by presenting evidence of successful completion of two courses in Intermediate Financial Accounting and one course each in Cost Accounting, Taxation, and Auditing.

While it is not required, it is helpful if students have successfully completed at least one undergraduate course in business or accounting analytics.

To Apply: Visit the online application portal Apply Here, create an account, complete the application, and upload the following required documents:

• Official transcripts from all institutions where you took classes or received a degree. You may provide copies of transcripts to speed the application process, but official transcripts will be needed to finalize admission.

• A current resume. Make sure your resume contains dates for all work experience and degrees received.

Factors that may be considered in the admission decision are:

- Undergraduate GPA\*,
- · Professional or Accounting Work Experience or Internships,
- Other Graduate Degrees and Relevant Achievements, and
- Significant leadership roles.

\*Although not required, a strong score on the GMAT can be a positive factor in an admission decision for students with a GPA that is below our average GPA. We recommend that you consider preparing for and taking the GMAT if your undergraduate GPA is below 3.0. GMAT information is available at GMAC - GMAT Assessment.

Note: Annually, the MAcc seeks to fill a cohort of 25-30 students each Fall term. Admission can be competitive. We advise you to submit your completed application and all required documentation as early as possible. We begin reviewing applications on January 31 each year.

Visit the Graduate Admissions Calendar for a complete list of application deadlines. MAcc admission is open to qualified students with a bachelor's degree and a major in accounting or coursework in accounting that gives students an academic foundation to be admitted into the MAcc program. The degree and coursework must be from an accredited institution. Consideration is given to the applicant's work experience and other activities that demonstrate potential for successful completion of the program.

Applications for admission are accepted for all semesters. Candidate screening and admission decisions will be made as applications are completed by the applicants.

#### Fast Track Program

Generally, the Fast Track program allows selected undergraduates to enroll for up to six (6) hours of graduate courses that will count at both the undergraduate and graduate level prior to formal admission to the MAcc program. Participation does not change the requirements for the student's undergraduate or MAcc program. Currently, the MAcc only allows students to Fast Track the six hours of electives in the MAcc program. Accounting courses (designated with the ACCT prefix) are not allowed to be Fast Tracked.

#### Admission to Fast-Track

Minimum requirements for admission are:

- 90 hours of undergraduate work in an AACSB accredited College of Business and successful completion of the required prerequisites
- Recommendation of a faculty member in the student's major
- Overall GPA of 3.2 and GPA of 3.2 in the student's major
- Program participants should consult with their future MAcc advisor regarding appropriate graduate courses to take during their junior/senior year.
- All requirements for full admission to Graduate School must be met upon graduation.
- Students who do not succeed in their first graduate course (B grade or better) will be advised to withdraw from the Fast Track program and complete their B.S. degree in a normal manner.

Fulfilling the above minimum requirements does not guarantee acceptance into the MAcc Fast Track program or the MAcc program. Students who meet the above minimum requirements must consult with the College of Business for eligibility and acceptance.

#### Minimum Retention Requirements

A MAcc student is required to maintain a cumulative grade average of at least B (3.0) in all courses taken for degree purposes. Not more than six (6) hours of credit below a B grade will be allowed. If a grade of C is assigned in a MAcc-related course, the course may be repeated. However, both the original grade and the grade for repeat will be counted in the cumulative average. A MAcc degree course may be repeated only one (1) time and no more than two (2) MAcc degree courses may be repeated. In addition, any student receiving a D or an F in a MAcc degree course shall be dismissed from the program.

#### Probation for Unsatisfactory Performance

A graduate student is required to maintain a cumulative grade point average of at least "B" on all graduate courses taken as a graduate student. When a student's cumulative average on courses falls below 3.0, but not less than 2.00, the student will be placed on probation. If the cumulative average falls below 2.00, the student will be dismissed.

If the term average, on all courses presented as part of the hours required for graduation, during any semester is less than 2.00, the student's record will be reviewed and the student may be placed on probation.

# **College of Education**

# **College of Education**

- College of Education Information
- Lisa Zagumny, Dean

Julie C. Baker, Associate Dean

#### **Departments and Program Information**

## **Department of Counseling and Psychology**

Department of Counseling and Psychology Website

• Department of Counseling and Psychology Information Stephanie Kazanas, Interim Department Chairperson

Departmental Graduate Faculty: Ellen Blaylock, Chris Burgin, Jann D. Cupp, Christina Dukes, Tammy L. Dukewich, Derrick Edwards, Angelica Galvan, Laura Haddock, Kevin Harris, Nicole Henniger, Kathryn Hermann-Turner, Stephanie Kazanas, Kathryn Kozak, Mark Loftis, Laura Yvonne Malone, Tony Michael, Brittney Phillips, Tabitha Schlatter, Dawn-Elise Snipes, Sandra Terneus, Wesley Webber, Marisa White, Zachary Wilcox, Matthew J. Zagumny

# **Doctor of Philosophy**

# Counseling and Supervision, Ph.D.

Counseling and Supervision, Ph.D. Program Information

#### Degree Requirements

The Ph.D. in Counseling and Supervision is a 48 credit hour doctoral degree program. The program consists of three degree components: Counseling and Supervision Core Coursework; Research Coursework; and Dissertation Research.

- Counseling and Supervision Core Coursework: 21 hours
- Research Core Coursework: 18 hours
- Dissertation Research: 9 hours
- Total Degree Requirements: 48 hours

Note: Two prerequisite and/or support courses (PSY 6310 , PSY 6930) may be required as determined by the advisor.

## Counseling and Supervision Core Coursework (21 hours)

- COUN 7320 Advanced Group Counseling in Addiction and Special Populations Credits. 3.
- COUN 7370 Counseling Supervision Cr. 3.
- COUN 7400 Advanced Counseling Practicum Credits. 3.
- COUN 7500 Research, Scholarship, and Publication Credits. 3.
- COUN 7610 Teaching in Counselor Education Credits 3.
- COUN 7700 Advanced Multicultural Counseling: Leadership and Advocacy Credit. 3.
- COUN 7840 Regional Mental Health and Addiction Services Credits. 3.

## Research Core Coursework (18 hours)

- PSY 7310 Advanced Educational Statistics Cr. 3.
- COUN 7510 Counseling Administration and Program Evaluation Credits. 3.

- COUN 7730 Qualitative Research Methods in Counseling Credits. 3.
- COUN 7740 Advanced Quantitative Inquiry and Research Design Credit. 3.
  OR
- COUN 7750 Advanced Qualitative Inquiry and Research Design Credits. 3.
- COUN 7820 Doctoral Internship Credits. 3. \*
  \*6 credit hour requirement. Students must take COUN 7820 over two semesters (6 credit hours) rather than one (3 credit hours).

#### Advisor Guided Electives

Research core requirements include an option of one elective. Electives may be taken in the COUN or PSY areas at the 6000 or 7000 level.

#### Dissertation Research (9 hours)

Nine (9) credit hour minimum. Ph.D. candidates may take more than the 9 credit hour minimum as necessary to successfully complete their dissertation research.

 COUN 7990 - Dissertation Research Credits. 1-9 variable credit hours. \* \* 9 credit hour requirement.

### Prerequisite Courses (6 hours)

The advisor will determine if prerequisite courses are required.

- PSY 6310 Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

# **Master of Arts**

# Counseling and Psychology, Clinical Mental Health Counseling Concentration, M.A.

#### **Degree Requirements**

The Master of Arts degree in Counseling and Psychology is designed to prepare students for exciting and challenging careers. Concentration areas include: Clinical Mental Health Counseling, Psychology, School Counseling, and School Psychology. The program consists for core counseling courses, core non-counseling courses, guided electives and core concentration courses.

Clinical Mental Health Concentration and the School Counseling Concentration consists of 60 hours. Students may also pursue Dual Licensure by adding an 18-hour Ed.S. degree in Clinical Mental Health Counseling or School Counseling.

School Psychology Concentration consists of 33-36 hours.

- Counseling Core Required Courses: 30 hours
- Non-Counseling Core Required Courses: 6 hours
- Advisor Guided Electives: 9 hours
- Concentration Core Courses: 15 hours
- Total Degree Requirement: 60 hours

## Counseling Core Required Courses (30 hours)

- COUN 6000 Counseling Across the Lifespan Cr. 3.
- COUN 6300 Introduction to Counseling: Foundations, Ethics, and Legal Issues Cr. 3.
- COUN 6320 Group Counseling Cr. 3.
- COUN 6360 Counseling Skills Cr. 3.
- COUN 6362 Counseling Theories Cr. 3.
- COUN 6380 Multicultural Counseling Cr. 3.
- COUN 6410 Career Counseling and Development Cr. 3.
- COUN 6670 Assessment in Counseling Cr. 3.
- COUN 6680 Trauma, Grief, and Crisis Counseling Cr. 3.
- COUN 6800 Practicum Cr. 3.

## Non-Counseling Core Required Courses (6 hours)

- PSY 6310 Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

#### Advisor Guided Electives (9 hours)

Selection of appropriate courses (PSY 5XXX-PSY 7XXX, and COUN 5XXX-COUN 7XXX) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

#### Concentration Core Requirements (15 hours)

- COUN 6370 Family Counseling Cr. 3.
- COUN 6460 Addiction Counseling Cr. 3.
- COUN 6820 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 6821 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 7600 Diagnosis and Treatment Cr. 3.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, Psychology Concentration, M.A.

#### Degree Requirements

The M.A. in Counseling and Psychology includes a concentration in Psychology. Students will choose between Plan I or Plan II. This program consists of 30 hours.

#### Plan I

- PSY 5000 level Advisor Guided Electives: 0-9 hours
- PSY 6000/7000 level Advisor Guided Electives: 6-21 hours
- Plan I Course Requirements (listed below): 9 hours
- Total Degree Requirements: 30 hours

#### Plan II - Thesis

- PSY 5000 level Advisor Guided Electives: 0-9 hours
- PSY or COUN 6000/7000 level Advisor Guided Electives: 6-21 hours
- Plan II Course Requirements (listed below): 6 hours
- Research and Thesis PSY 6990: 6-9 hours
- Total Degree Requirement: 30 hours

## Advisor Guided Electives (9 hours)

Selection of appropriate courses (PSY 5XXX-PSY 7XXX, and COUN 5XXX-COUN 7XXX) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Plan I Course Requirements

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.
- Plus 3 hours of Advisor Guided Electives Cr. 3.

## Plan II Course Requirements

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- FOED 6920 Educational Research Cr. 3. OR
- PSY 7900 Independent Study in Educational Psychology Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, School Counseling Concentration, M.A.

#### Degree Requirements

The Master of Arts degree in Counseling and Psychology is designed to prepare students for exciting and challenging careers. Concentration areas include: Clinical Mental Health Counseling, Psychology, School Counseling, and School Psychology. The program consists for core counseling courses, core non-counseling courses, guided electives and core concentration courses.

Clinical Mental Health Concentration and the School Counseling Concentration consists of 60 hours. Students may also pursue Dual Licensure by adding an 18-hour Ed.S. degree in Clinical Mental Health Counseling or School Counseling.

School Psychology Concentration consists of 33-36 hours.

- Counseling Core Required Courses: 30 hours
- Non-Counseling Core Required Courses: 6 hours
- Advisor Guided Electives: 9 hours
- Concentration Core Courses: 15 hours
- Total Degree Requirement: 60 hours

## Counseling Core Required Courses (30 hours)

- COUN 6000 Counseling Across the Lifespan Cr. 3.
- COUN 6300 Introduction to Counseling: Foundations, Ethics, and Legal Issues Cr. 3.
- COUN 6320 Group Counseling Cr. 3.
- COUN 6360 Counseling Skills Cr. 3.
- COUN 6362 Counseling Theories Cr. 3.
- COUN 6380 Multicultural Counseling Cr. 3.
- COUN 6410 Career Counseling and Development Cr. 3.
- COUN 6670 Assessment in Counseling Cr. 3.
- COUN 6680 Trauma, Grief, and Crisis Counseling Cr. 3.
- COUN 6800 Practicum Cr. 3.

## Non-Counseling Core Required Courses (6 hours)

- PSY 6310 Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

#### Advisor Guided Electives (9 hours)

Selection of appropriate courses (PSY 5XXX-PSY 7XXX, and COUN 5XXX-COUN 7XXX) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

#### Concentration Core Courses (15 hours)

School Counseling follows the same Counseling Core Course Requirements, Non-Counseling Core Requirements, and Advisor Guided Electives as listed above for Clinical Mental Health Counseling. The two programs differ by concentration courses.

- COUN 6330 Organization and Administration in School Counseling Programs Cr. 3.
- COUN 6335 Professional Issues in the Educational Settings Cr. 3.
- COUN 6385 Counseling Children and Adolescents Cr. 3.
- COUN 6830 Internship in School Counseling Cr. 3, 6.
- COUN 7830 Internship in School Counseling Cr. 3, 6.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, School Psychology Concentration, M.A.

#### **Degree Requirements**

The MA in Counseling and Psychology with a concentration is School Psychology is a 33-36 hour nonlicensure option. Degree requirements include:

#### Plan I

- Required Core Courses: 24 hours
- Plan I Required Courses: 12 hours
- Total Degree Requirement Plan I: 36 hours

#### Plan II

- Required Core Courses: 24 hours
- Plan II Required Courses: 9 hours
- Total Degree Requirement Plan II: 33 hours

Note: The School Psychology Concentration may require 15 hours of background courses. See your advisor to discuss the addition of background courses to your program hours.

## Required Core Courses (24 hours)

- PSY 4160 (5160) Abnormal Psychology Cr. 3.
- PSY 7730 Individual Testing Cr. 3.
- PSY 7200 Advanced Educational Psychology Cr. 3.
- COUN 6300 Introduction to Counseling: Foundations, Ethics, and Legal Issues Cr. 3.
- COUN 6320 Group Counseling Cr. 3.
- COUN 6360 Counseling Skills Cr. 3.
- COUN 6362 Counseling Theories Cr. 3.
- COUN 6800 Practicum Cr. 3.

## Required Courses: Plan I (12 hours)

The following courses are required for a student selecting Plan I of the School Psychology concentration.

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- FOED 6920 Educational Research Cr. 3. OR
- PSY 7900 Independent Study in Educational Psychology Cr. 3.
- PSY 6990 Research and Thesis Cr. 1-9.

## Required Courses: Plan II (9 hours)

Students enrolling in Plan II of the School Psychology concentration must take the following courses (6 hours) and also select one additional advisor recommended elective (3 hours).

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

## School Psychology Concentration Background Courses

Your advisor will determine what background courses you may need for the degree program. Typically the following background courses are required:

- PSY 4050 (5050) Learning and Cognition Cr. 3.
- PSY 4100 (5100) Child Psychology Cr. 3.
- PSY 4150 (5150) Psychology of Personality Cr. 3.
- PSY 4200 (5200) Adolescent Psychology Cr. 3.
- PSY 4250 (5250) Introduction to Psychological Testing Cr. 3.

# **Specialist in Education**

# Counseling and Psychology, Clinical Mental Health Counseling Concentration, Ed.S.

Counseling and Psychology EdS Program Information

#### **Degree Requirements**
A minimum of 30 semester hours beyond the master's degree is required. At least 15 semester hours must be taken in courses numbered at the 7000 level and no courses below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Director of Graduate Studies.

In the Department of Counseling and Psychology, a maximum of three (3) semester hours of departmentally approved 5000-level credit may be included in a Specialist in Education Degree program of study.

Upon approval from the student's advisory committee, up to twelve (12) credit hours from a previously earned 60 hour master's degree program, can be counted toward the Ed.S. degree.

#### **Concentration Requirements**

The Ed.S. in Clinical Mental Health Counseling consists of 15 guided electives plus 15 credit hours of concentration course blocks as defined below.

Students who have completed a 60 hour Master's degree in counseling only need to complete one of the 18 hour blocks below that they have not already completed in their Master's degree.

- Required Concentration Courses: 15 hours
- Advisor Guided Electives: 15 hours
- Total Degree Requirement: 15 hours

#### Required Concentration Courses (15 hours)

- COUN 6370 Family Counseling Cr. 3.
- COUN 6460 Addiction Counseling Cr. 3.
- COUN 6820 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 6821 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 7600 Diagnosis and Treatment Cr. 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education

- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Counseling and Psychology, School Counseling Concentration, Ed.S.

Counseling and Psychology EdS Program Information

#### **Degree Requirements**

A minimum of 30 semester hours beyond the master's degree is required. At least 15 semester hours must be taken in courses numbered at the 7000 level and no courses below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Director of Graduate Studies.

In the Department of Counseling and Psychology, a maximum of three (3) semester hours of departmentally approved 5000-level credit may be included in a Specialist in Education Degree program of study.

Upon approval from the student's advisory committee, up to twelve (12) credit hours from a previously earned 60 hour master's degree program, can be counted toward the Ed.S. degree.

#### **Concentration Requirements**

The Ed.S. program in School Counseling consists of 15 guided electives plus 15 credit hours in the required concentration courses. Students who have completed a 60 hour Master's program in counseling only need to complete the 18 credit hours below that they have not already completed in their Master's degree.

- Required Concentration Courses: 15 hours
- Advisor Guided Electives: 15 hours
- Total Requirements: 30 hours

## Required Concentration Courses (15 hours)

- COUN 6385 Counseling Children and Adolescents Cr. 3.
- COUN 6330 Organization and Administration in School Counseling Programs Cr. 3.
- COUN 6335 Professional Issues in the Educational Settings Cr. 3.
- COUN 6830 Internship in School Counseling Cr. 3, 6.
- COUN 7830 Internship in School Counseling Cr. 3, 6.

#### Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, School Psychology Concentration, Ed.S.

Counseling and Psychology EdS Program Information

#### **Degree Requirements**

A minimum of 30 semester hours beyond the master's degree is required. At least 15 semester hours must be taken in courses numbered at the 7000 level and no courses below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Director of Graduate Studies.

In the Department of Counseling and Psychology, a maximum of three (3) semester hours of departmentally approved 5000-level credit may be included in a Specialist in Education Degree program of study.

Upon approval from the student's advisory committee, up to twelve (12) credit hours from a previously earned 60 hour master's degree program, can be counted toward the Ed.S. degree.

#### **Concentration Requirements**

The Ed.S. concentration in School Psychology is a 30 hour program and consists of 9 required courses as defined below. However, additional courses may be required for the School Psychologist Endorsement.

• Required Concentration Courses: 30 hours

#### **Required Concentration Courses**

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- PSY 7170 Consultation in the Education Setting Cr. 3.
- PSY 7310 Advanced Educational Statistics Cr. 3.
- PSY 7610 Introduction to Personality Assessment Cr. 3.
- PSY 7900 Independent Study in Educational Psychology Cr. 3.
- PSY 7910 Assessment and Intervention Cr. 3.
- PSY 7920 Assessment and Intervention Cr. 3.
- PSY 7950 Internship in School Psychology Cr. 3. \*
   \* Two courses of three semester hours each, taken over two semesters, for a total of 1200 clock hours.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

### **Department of Curriculum and Instruction**

- Curriculum and Instruction Website
- Department of Curriculum and Instruction Information
- Exceptional Learning Overview

Jeremy Wendt, Chairperson

Departmental Graduate Faculty: Ashley Akenson, James Akenson, Holly Anthony, Jane Baker, Julie Baker, Jason Beach, Amy Callendar, George Chitiyo, Danielle Collins, Melissa Comer, Cindy Conley, Perihan Fidan, Yvette Freter, Rebecca Garrett, Chester Goad, Cory Gleasman, Ka Rene Grimes, Kimberly Hale, Martha Howard, Janet Isbell, Patricia Jones, Krystal Kennedy, Nancy Kolodziej, Elizabeth Lackey, Michael Littrell, Delia Ann Manginelli, Rebekah Marcum, Jennifer Meadows, Kelly Moore, Queen Ogbomo, Miguel Perez Montoro, Darek Potter, Amanda Roberts, Amy Leigh Rogers, Kyle Shanks, Michael Shuran, Dorota Silber-Furman, Matthew Smith, Sandi Smith-Andrews, Amber Spears, Julie Stepp, Leslie Suters, Frances Taylor, Paula Taylor-Greathouse, Kristen Trent, Sara Wehrmann, Jeremy Wendt, Stephanie Wendt, Lisa Zagumny

## **Doctor of Philosophy**

## **Exceptional Learning Overview**

#### Ashley B. Akenson, Ph.D., Director

The Exceptional Learning Ph.D. (ELPhD) program focuses on the characteristics, strengths, and educational needs of individuals and groups whose learning potential and opportunities for success are frequently unrealized. Exceptional populations include people for whom social, economic, and physical characteristics may serve as a barrier to development and learning.

The ELPhD program offers robust academic preparation of professionals who serve their communities, public school systems, institutions of higher education, and nontraditional educational environments. Our graduates are leaders who work across local, regional, national, and international platforms to effect positive change in diverse populations of exceptional learners and educational contexts, addressing barriers to learning, primarily through research and service activities.

The ELPhD curriculum is organized around three areas of knowledge development-core, concentration, and research. Core knowledge includes an orientation to the program, theory, foundations for understanding exceptional populations, program planning and evaluation, and technology. Concentration knowledge helps students to deepen and hone their specific interests. The innovative research sequence grounds students in quantitative and qualitative research methodologies.

Five concentrations and two tracks allowing students to focus on specific areas of professional and research interests:

**Applied Behavior Analysis** prepares professionals who can develop and deliver behavioral interventions and supports for individuals within educational and habilitative settings. There are two ABA tracks:

Young Children and Families prepares professionals to provide support and interventions to young, at-risk children and families with emphasis on building relationships and advocating for

children and families. (Track Leader - Dr. Jane Baker)

**School-Aged Children and Adult Populations** prepares professionals who will implement and provide empirical support for behavioral interventions for a range of populations and pursue board certification as a behavior analyst. The ABAS course sequence is approved by the national Behavior Analyst Certification Board (BACB).(Track leader – Dr. Krystal Kennedy)

**Health Behaviors and Wellness Education (HBWE)** offers cutting-edge, hands-on experiential courses along with related pedagogical methods and theory. HBWE research courses supply additional opportunities to research and address discipline-specific concerns. This comprehensive and novel design supplies students with the knowledge, skills, and abilities necessary to succeed professionally and lead change in health sciences and wellness disciplines. (Concentratoin Leader – Dr. Christy Killman)

**Literacy** empowers educational innovators to develop cutting-edge, socially conscious approaches to multiliteracies and challenge narrow conceptions of learners, families, and worldviews. (Concentration Leader – Dr. Janet Isbell)

**Program Planning and Evaluation (PPE)** prepares professionals for leadership roles in the field of PPE. Program content includes the history of the field, influence in context and cultures in PPE design and methodology, quantitative and qualitative methods, and practical application of PPE skills through practicum experiences. (Concentration Leader – Dr. George Chitiyo)

**STEM Education** builds the capacity of innovative educational leaders to advance new ideas and to design/implement strategic innovations in science, technology, engineering and mathematics (STEM) education. (Concentration Leader – Dr. Holly Anthony)

#### Admission Requirements

A multifaceted approach is taken in the application and admissions decisions process. The applicant will be evaluated on the criteria listed below in order to determine the applicant's overall potential for success in the ELPhD program. Please note, however, that fulfillment of the minimum requirements *does not* guarantee admission.

- QPA-Consideration for admission to the program is based on the applicant's grade point average (GPA) in the last graduate degree or the last 60 hours of undergraduate work if no graduate degree has been completed. If a student has successfully completed some graduate hours but not attained a graduate degree, the GPA for these courses may also be considered. An average of 3.0 (on a 4.0 scale) or above from a recognized baccalaureate, graduate, or professional degree from an accredited college or university, or an international equivalent based on a four-year curriculum is required for admission.
- 2. **GRE** valid GRE scores (score date within 5 years of application) must be submitted as part of the ELPhD application.
- 3. Scholarly Writing–Students must demonstrate scholarly writing skill and mastery by submitting a reference-based paper, thesis, or other written document. The writing sample should use multiple, credible sources to support a particular point of view, argument, or claim and show the applicant's writing quality, skillful analysis/argument, and proficiency with synthesizing information. The applicant must be the sole author. The scholarly writing sample does not have a specific topic requirement.
- 4. Statement of Intent–One (1) to two (2) pages that address the following: intended enrollment (semester and year), intended concentration, autobiographical statement, educational and professional goals, and area of interest for future research. Applicants to the ABA concentration must indicate the track in which they wish to enroll: School-Aged & Adult Populations (ABAS) or Young Children & Families (YCF).
- 5. **Three Letters of Recommendation**–Recommendation letters should be from individuals, preferably professors, who are able to comment on the student's qualifications and scholarly

aptitude for doctoral study. The letter should also address characteristics that will contribute to the student's success as a doctoral student should you be accepted in the ELPhD program. Consideration will be made based upon the content of these letters. Please make certain the recommenders know they must submit a letter as well as evaluate the applicant on a series of qualities (done when submitting the letter). Applications without three letters may not receive full consideration.

- 6. Professional Curriculum Vitae (CV)/Resume
- 7. **Interviews -** Applicants who pass the initial evaluation will be required to have an interview with the ELPhD program faculty and director of graduate programs.
- 8. International Students must also meet the English Language Requirement by providing TOEFL test scores: a minimum of 80 on the TOEFL iBT is required. If you have taken another TOEFL version and the results are still valid (no more than 5 years old), the score requirements are: 213 on TOEFL CBT or 550 on TOEFL PBT.

Applicants who have citizenship in a country where English is a primary language or have been awarded a degree from a university in one of the following countries **are exempt from the English Language requirement:** Australia, Belize, the British Caribbean and British West Indies, Canada (except Quebec), England, Guyana, Ireland, Liberia, New Zealand, Scotland, the United States, and Wales.

## If a candidate does not have access to a TOEFL testing site, it may be possible to accept another language proficiency test score. Candidates should inquire before submitting a test score other than the TOEFL.

\*Please note the STEM Education concentration requires the following additional admission requirements:

- 1. Three years of STEM teaching/outreach (P-16)
- 2. Master's Degree and
- 3. One of the following:
  - A minimum of 18 semester hours of graduate credit in a STEM discipline;
  - Teacher Licensure in a STEM discipline (Grades 6-8, 6–12, or 7-12);
  - Teacher Licensure (K-5) with 24 semester hours in math/science; or
  - Teacher Licensure (K-5) with a passing score on the state-approved licensure exam for a STEM content area.

#### Program Requirements

The student must maintain a cumulative point average of 3.25 and, in addition to adhering to the general regulations of the College of Graduate Studies, adhere to the specific regulations for the Ph.D. in Exceptional Learning program. These regulations, standards, and expectations include:

1. A minimum of 78–79 semester hours of successfully completed course work: 13 hours core courses, 21 hours research courses, 23–24 hours concentration courses, 6 hours elective courses, and a minimum of 15 dissertation hours. All hours should be taken at the 6000– and 7000–levels (transfer credit may include other level courses with approval). **Note**: if an equivalent specialty course is not available at the 6000– or 7000– level, a 5000–level course that is germane to the student's research/areas of research interest may be used to meet the minimum requirements of course work **only** by permission of the instructor of the course in question, student's advisor or graduate advisory committee, and the Director of Graduate Programs. Written approval must be secured before enrolling; this may be through inclusion on the approved Program of Study or separate documentation, such as a Substitution form.

a. A minimum of 51 semester hours of course work beyond the baccalaureate must be completed after admittance into the doctoral program, including a minimum of 12 semester hours at the 7000-level (excluding dissertation credit).

b. Upon approval from the student's advisory committee and the Director of Graduate Programs, up to nine (9) graduate credit hours with a grade of *B* or better can be counted toward the first 33 hours of the ELPhD Program of Study; these may be credits that are independent of <u>or</u> included in a previously earned degree. Requests to transfer more than a total of 18 credit hours must be approved by the Director of Graduate Programs prior to submitting the Program of Study or transfer request. No more than 27 semester hours of credit at the Master's and Educational Specialist levels, excluding theses and problems courses, may be accepted for transfer credit toward the doctorate. All transfer credit must align with Tennessee Tech and SACSCOC guidelines.

2. All requirements, including the dissertation, must be completed within a period of no more than eight (8) consecutive years.

3. As and Bs are required in coursework. A grade of C is considered a failing grade in doctoral programs. The student is allowed to maintain a grade of C in only one (1) course completed toward the Ph.D. degree. A student receiving two (2) Cs will be dismissed from the program. If a second C is received, it may not be substituted or moved out of the student's program of study in order to avoid dismissal.

4. Ds and Fs are not acceptable in the Ph.D. in Exceptional Learning program. If a student receives a grade of D or F in a course, she/he will be dismissed from the program.

5. If an *Incomplete* is granted, the student has one (1) academic year to complete the requirements. If the requirements have not been met in the allotted time period, the grade is converted to an *IF* and the student will be dismissed from the program.

6. A maximum of twelve (12) credit hours may be taken in one (1) semester. Written approval from the student's advisor/chair, department chair, and director of graduate programs is required to register and take more than 12 credit hours in one semester.

7. Course repetition is not allowed in the ELPhD program.

8. Course substitutions are allowed upon written approval from the advisor/graduate advisory committee, department chair, and director of graduate programs.

9. Students should complete their Comprehensive Examinations either a) following completion of all course work, excluding EDU 7920 and EDU 7990, or b) during the last semester during which such course work is to be completed. Comprehensive Examinations should occur no later than the end of the semester in which the student completes EDU 7920.

10. Approval of the dissertation topic, a successful dissertation proposal presentation to the entire graduate advisory committee, and IRB approval (where appropriate) must precede any significant work on the dissertation. IRB approval must be obtained for any human subjects research project initiated by a student (or faculty member); this includes studies using secondary data.

11. Satisfactory completion of the dissertation requires an oral defense.

12. Dissertation hours (15 hours minimum) may not be completed in fewer than 2 semesters.

## En-route M.A. or Ed.S Degree in Curriculum and Instruction (C&I)

A student pursuing an Exceptional Learning Ph.D. may elect to earn an en-route degree as they progress through the ELPhD program. Those students entering the program with no prior graduate degree may earn an M.A. in Curriculum & Instruction (C&I) with a Curriculum concentration, as the student successfully

advances toward completion of the Ph.D. Those who enter the program with a graduate degree may elect to earn either the M.A. or an Ed.S. in Curriculum & Instruction with a Curriculum concentration.

If a student elects to forego the en-route degree, the full 79 credit hours of the program must be completed. The Ph.D. is not reduced to 46–49 hours, even if a student enters with one or more graduate degrees.

#### En-route M.A. in Curriculum & Instruction (with Curriculum concentration)

The en-route M.A. degree may be awarded when the student successfully completes 33 semester credit hours <u>and must include</u> successful completion of nine (9) credit hours of either quantitative (EDU 7420, EDU 7430, and EDU 7300) or qualitative (EDU 7010, EDU 7330, and EDU 7340) research. The M.A. will <u>not</u> be awarded without completion of these 9 research credit hours.

Enroute-MA in Curriculum and Instruction		
Course Requirements	Credit Hours	
Research Requirement: Quantitative Track: EDU7420, EDU 7430 and EDU 7300 OR Qualitative Track: EDU 7010, EDU 7330 and EDU 7340	9 hours	
Advisor Guided Electives	24 hours	
TOTAL Hours for Enroute MA	33 hours	

Students who have already earned a graduate degree before entering the ELPhD program or who have taken graduate courses that are relevant to the program (and for which the grade is a *B* or better) may be eligible to transfer in up to 9 credits <u>for the M.A. portion of the ELPhD program of study</u>. Any courses taken or transferred in at the 5000-level must be applied to the en-route M.A. portion of the program, unless special exception has been secured. Courses applied to the en-route M.A. <u>must be completed within six years of enrollment</u>.

The en-route M.A. degree may be awarded at any point during the program, given that the student:

- meets both the C&I M.A. and Ph.D. research course requirements as listed above;
- has submitted an approved Program of Study with signatures from the student's advisory committee, the Chair of C&I, and the Director of Graduate Programs;
- has satisfied all College of Graduate Studies General Degree Requirements policies; and

• has applied for graduation in accordance with the requirements of the College of Graduate Studies. Students <u>must apply for graduation</u> as required in order to earn their en-route degree—it is not automatically awarded.

Once the en-route M.A. in Curriculum & Instruction has been awarded, the remaining portion of the Program of Study must include a minimum of 45–46 semester credits of appropriate graduate-level coursework consisting of research, concentration, core, and elective credits at the 6000– and 7000–level, as approved by the student's advisory committee and the Director of Graduate Programs. A minimum of 15 semester credit hours of doctoral research and dissertation is required in no fewer than two (2) semesters.

#### En-route Ed.S. in Curriculum & Instruction (with Curriculum concentration)

The en-route Ed.S. degree may be awarded when the student successfully completes 30 semester credit hours <u>and must include</u> successful completion of nine (9) credit hours of either quantitative (EDU 7420, EDU 7430, and EDU 7300) or qualitative (EDU 7010, EDU 7330, and EDU 7340) research. The Ed.S. will not be awarded without completion of these 9 research credit hours.

Enroute-Ed.S. in Curriculum and Instruction	
Course Requirements	Credit Hours
Research Requirement:	
Quantitative Track: EDU7420, EDU 7430 and EDU 7300 OR Qualitative Track: EDU 7010, EDU 7330 and EDU 7340	9 hours
Advisor Guided Electives	21 hours
TOTAL Hours for Enroute	30 hours

Students who have already earned a graduate degree before entering the ELPhD program or who have taken graduate courses that are relevant to the program (and for which the grade is a *B* or better) may be eligible to transfer in up to 9 credits <u>for the en-route Ed.S. portion of the ELPhD program of study</u>. Any courses taken or transferred in at the 5000-level must be applied to the en-route Ed.S. portion of the program, unless special exception has been secured. Courses applied to the en-route Ed.S. <u>must be completed within six years of enrollment</u>.

The en-route Ed.S. degree may be awarded at any point during the program, given that the student:

- meets both the C&I Ed.S. and Ph.D. research course requirements as listed above;
- has submitted an approved Program of Study with signatures from the student's advisory committee, the Chair of C&I, and the Director of Graduate Programs;
- has satisfied all College of Graduate Studies General Degree Requirements policies; and
- has applied for graduation in accordance with the requirements of the College of Graduate Studies.

Students <u>must apply for graduation</u> as required in order to earn their en-route degree—it is not automatically awarded.

Once the en-route Ed.S. in Curriculum & Instruction has been awarded, the remaining portion of the Program of Study must include a minimum of 48–49 semester credits of appropriate graduate-level coursework consisting of research, concentration, core, and elective credits at the 6000– and 7000–level, as approved by the student's advisory committee and the Director of Graduate Programs. A minimum of 15 semester credit hours of doctoral research and dissertation is required in no fewer than two (2) semesters.

Note: Only students admitted to the ELPhD program are permitted to enroll in these courses.

#### Curriculum

 Ph.D. Exceptional Learning Degree Requirements

 Requirement
 Credit Hours

 Core Coursework
 13

 Core Concentration Coursework
 23-24

 Advisor Guided Electives
 6-7

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

Research Coursework	21
Dissertation	15+
Total Degree Requirements	78-79

## Core Courses (Select 13 Credit Hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

## Research Component (Select 21 Credit Hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \* Choose one additional research course from the following:
- EDU 7320 Research Methods in Behavior Analysis Cr. 3. OR
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \* \*EDUP 7410 counts as research for non-PPE concentration students
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \* \* (only if a research-based topic)

### Dissertation (15 Credit Hours)

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9. \* The 15 hours are generally taken in 9 & 6 hour blocks.

### **Concentration Course Requirements**

Applied Behavior Analysis Concentration

ABA Specialization:

School-Aged Children and Adult Populations (Select 23/24 Credit Hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDUB 7000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 7010 Topics in Behavior Analysis Cr. 3.
- EDUB 7020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 7030 Assessment in Behavior Analysis Cr. 3.
- EDUB 7050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 7060 Ethics in ABA Cr. 3.

Young Children and Families (Select 23/24 Credit Hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- ABAP 7920 Topics, Issues & Research in Early Childhood Special Education Cr. 2.
- ECED 7220 Early Childhood Instruction and Materials Cr. 3.
- EDUC 7400 Programs and Service Delivery Models Cr. 3.
- EDUC 7450 Doctoral Seminar: Young Children and Families Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

### Health Behaviors and Wellness Education Concentration

The Health Behavior and Wellness Education (HBWE) concentration offers cutting-edge, hands-on experiential courses along with related pedagogical methods and theory. HBWE research courses supply additional opportunities to research and address discipline-specific concerns. This comprehensive and novel design supplies students with the knowledge, skills, and abilities necessary to succeed professionally and lead change in health sciences and wellness disciplines.

- EDUH 7000 Current Issues in Exercise Science, Health Behavior, and Wellness Education Cr. 3.
- EDUH 7010 Pedagogical Theory of Physical Education Cr. 3.
- EDUH 7020 Advanced Teaching in Exercise Science and Health Related Fields Cr. 3.
- EDUH 7100 Biomechanics of Human Movement Cr. 3.
- EDUH 7200 Foundations of Health Promotion Cr. 3.
- EDUH 7300 Behavioral Aspects of Physical Activity Cr. 3.
- EDUH 7500 Health Behavior and Wellness Education Research Cr. 3.
- EDUH 7600 Special Topics in Exercise Science Cr. 1-3.
- EDUH 7610 Independent Study in Exercise Science/ Health Behavior and Wellness Education Cr. 1-3.

### Literacy Concentration (Select 23/24 Credit Hours)

The Literacy concentration engages students in a continuum of exploration to develop well-rounded knowledge of literacy research, theory, and practice, as well as expand expertise in the student's choice of topic.

• EDUL 7100 - Literacy History, Theory, and Policy Cr. 3.

- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUL 7600 The Literacy Professional Cr. 3.
- EDUL 7700 Theory, Methodology, & Trends in Literacy Research Cr. 3.
- EDUL 7900 Community Literacy Cr. 3.

## Program Planning and Evaluation Concentration (Select 23/24 Credit Hours)

This concentration prepares professionals for leadership roles in program planning and evaluation in various settings. In addition to exposing students to different theories of evaluation, the program equips students with both qualitative and quantitative research/evaluation methods.

- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- EDUP 7420 Advanced Program Planning and Evaluation Methods II Cr. 3.
- EDUP 7810 Supervised Practicum in Program Planning and Evaluation Cr. 3-9. 18 credit hours of EDUP 7810 is required, and may be taken in blocks of 3, 6, and/or 9 credit hours.

## STEM Education Concentration (Select 23/24 Credit Hours)

The STEM education concentration provides students with the background and experience needed to assume leadership roles in the development, delivery, and assessment of STEM education programs.

- EDUS 7500 STEM Education Foundations Cr. 3.
- EDUS 7510 STEM Curriculum & Assessment Cr. 3.
- EDUS 7540 STEM Education Pedagogy Cr. 3.
- EDUS 7550 STEM Education Trends and Issues Cr. 3.
- EDUS 7530 STEM Education Research Cr. 3.
- EDUS 7560 STEM Learners and Learning Cr. 3.
- EDUS 7580 STEM Education Field Study Cr. 2.
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.
- EDUS 7515 STEM Education Seminar Cr. 1.
- EDUS 7520 STEM Technology Seminar Cr. 1.

#### Advisor Guided Electives

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.

- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

## Approved Substitutions for CUED 7430 or EDU 7440

The following are approved substitutions for CUED 7430 or EDU 7440. Course selections below from the Literacy concentration may only be counted as a substitution core course for those student whom are NOT in the Literacy concentration.

- CUED 7010 Learning Theories Cr. 3.
- CUED 7510 Instructional Design Foundations Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exceptional Learning, Applied Behavior Analysis Concentration, Ph.D.

Exceptional Learning Program Information

#### Degree Requirements

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

## Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

## Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

## Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### Core Concentration Coursework

### School-Aged Children and Adult Populations (Select 23/24 hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- EDU 7320 Research Methods in Behavior Analysis Cr. 3.

- EDUB 7000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 7010 Topics in Behavior Analysis Cr. 3.
- EDUB 7020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 7030 Assessment in Behavior Analysis Cr. 3.
- EDUB 7050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 7060 Ethics in ABA Cr. 3.

### Young Children and Families (Select 23/24 hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- ABAP 7920 Topics, Issues & Research in Early Childhood Special Education Cr. 2.
- ECED 7220 Early Childhood Instruction and Materials Cr. 3.
- EDUC 7400 Programs and Service Delivery Models Cr. 3.
- EDUC 7450 Doctoral Seminar: Young Children and Families Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

#### **Advisor Guided Electives**

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Exceptional Learning, Health Behaviors and Wellness Education Concentration, Ph.D.

Exceptional Learning Program Information

#### **Degree Requirements**

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- **Dissertation:** 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

#### Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

### Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

## Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### Core Concentration Coursework

The Health Behavior and Wellness Education (HBWE) concentration offers cutting-edge, hands-on experiential courses along with related pedagogical methods and theory. HBWE research courses supply additional opportunities to research and address discipline-specific concerns. This comprehensive and novel design supplies students with the knowledge, skills, and abilities necessary to succeed professionally and lead change in health sciences and wellness disciplines. HBWE students will select 24 credit hours from the following courses:

- EDUH 7000 Current Issues in Exercise Science, Health Behavior, and Wellness Education Cr. 3.
- EDUH 7010 Pedagogical Theory of Physical Education Cr. 3.
- EDUH 7020 Advanced Teaching in Exercise Science and Health Related Fields Cr. 3.
- EDUH 7100 Biomechanics of Human Movement Cr. 3.
- EDUH 7200 Foundations of Health Promotion Cr. 3.
- EDUH 7300 Behavioral Aspects of Physical Activity Cr. 3.
- EDUH 7500 Health Behavior and Wellness Education Research Cr. 3.
- EDUH 7520 Inquiry in Health Behavior and Wellness Education Cr. 1-4.
- EDUH 7600 Special Topics in Exercise Science Cr. 1-3.
- EDUH 7610 Independent Study in Exercise Science/ Health Behavior and Wellness Education Cr. 1-3.

#### **Advisor Guided Electives**

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## **Exceptional Learning, Literacy Concentration, Ph.D.**

Exceptional Learning Program Information

#### Degree Requirements

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

### Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

## Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.

• EDU 7950 - Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

## Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### **Core Concentration Coursework**

The Literacy concentration engages students in a continuum of exploration to develop well-rounded knowledge of literacy research, theory, and practice, as well as expand expertise in the student's choice of topic.

- EDUL 7100 Literacy History, Theory, and Policy Cr. 3.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUL 7600 The Literacy Professional Cr. 3.
- EDUL 7700 Theory, Methodology, & Trends in Literacy Research Cr. 3.
- EDUL 7900 Community Literacy Cr. 3.

#### Advisor Guided Electives

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.

• SPED 7110 - Family Collaboration in Special Education Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Exceptional Learning, Program Planning and Evaluation Concentration, Ph.D.

Exceptional Learning Program Information

#### **Degree Requirements**

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

#### Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

## Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

## Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### Core Concentration Coursework

This concentration prepares professionals for leadership roles in program planning and evaluation in various settings. In addition to exposing students to different theories of evaluation, the program equips students with both qualitative and quantitative research/evaluation methods.

- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- EDUP 7420 Advanced Program Planning and Evaluation Methods II Cr. 3.
- EDUP 7810 Supervised Practicum in Program Planning and Evaluation Cr. 3-9. 18 credit hours of EDUP 7810 is required, and may be taken in blocks of 3, 6, and/or 9 credit hours.

#### **Advisor Guided Electives**

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.

• SPED 7110 - Family Collaboration in Special Education Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exceptional Learning, STEM Education Concentration, Ph.D.

Exceptional Learning Program Information

#### Degree Requirements

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- **Research Coursework:** 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

#### Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

## Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

## Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### STEM Education Concentration

The STEM education concentration provides students with the background and experience needed to assume leadership roles in the development, delivery, and assessment of STEM education programs.

- EDUS 7500 STEM Education Foundations Cr. 3.
- EDUS 7510 STEM Curriculum & Assessment Cr. 3.
- EDUS 7540 STEM Education Pedagogy Cr. 3.
- EDUS 7550 STEM Education Trends and Issues Cr. 3.
- EDUS 7530 STEM Education Research Cr. 3.
- EDUS 7560 STEM Learners and Learning Cr. 3.
- EDUS 7580 STEM Education Field Study Cr. 2.
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.
- EDUS 7515 STEM Education Seminar Cr. 1.
- EDUS 7520 STEM Technology Seminar Cr. 1.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## **Master of Arts**

## Curriculum and Instruction, Applied Behavior Analysis Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 24 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 3 hours
- Total Degree Requirements: 33 hours

#### **Core Concentration Coursework**

- EDUB 6000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 6030 Assessment in Behavior Analysis Cr. 3.
- EDUB 6020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 6320 Research Methods in Behavior Analysis Cr. 3.
- EDUB 6010 Topics in Behavior Analysis Cr. 3.
- EDUB 6050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 6060 Ethics in ABA Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation

- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Curriculum and Instruction, Curriculum Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### Degree Requirements

- Core Concentration Coursework: 9 hours
- Advisor Guided Electives: 18 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Curriculum and Instruction, Early Childhood Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 15 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 12 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- ECED 7210 Early Childhood Curriculum Cr. 3.
- ECED 7220 Early Childhood Instruction and Materials Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- SPED 6010 Survey of Disability Characteristics, Procedures, and Methods in Special Education Cr. 3.
- SPED 7200 Teaching Individuals With Autism Spectrum Disorder Credit 3.

#### Research Coursework

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning

- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Elementary Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 9 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- CUED 6150 Middle School Curriculum Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- ELED 6400 Advanced Studies in Elementary Science Education Cr. 3.
- ELED 6500 Diagnostic and Remediation Techniques in Elementary Mathematics Cr. 3.
- ELED 6600 Organizing Themes for Social Studies Cr. 3.
- ELED 7400 The Literacy Language Arts Program Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3.
   OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Curriculum and Instruction, Family and Consumer Sciences Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 9 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- HEC 6630 Strategies and Advocacy for Families Cr. 3.
- HEC 6811 Learning and Instructional Strategies in Family Consumer Sciences Education Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3.
   OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning

- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Curriculum and Instruction, Library Science Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 27 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- CSED 6000 Digital Literacy and Computing Cr. 3. OR
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- LSCI 4570 (5570) Young Adult Literature Cr. 3. OR
- LSCI 7570 Contemporary Young Adult Literature Cr. 3
- LSCI 6010 Classification and Cataloging of Media and Materials Cr. 3.
- LSCI 6600 Literature Across the Curriculum Cr. 3. OR
- LSCI 6550 Contemporary Children's Literature Cr. 3.
- LSCI 7000 Information Literacy Tools and Services Cr. 3.
- LSCI 7030 Administration of the School Library Cr. 3.
- LSCI 7040 Technology Engagement and Support for Libraries Cr. 3.
- LSCI 6800 Library Practicum Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## **Curriculum and Instruction, Literacy Concentration, M.A.**

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 27 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- READ 6100 Uses of Technology in Literacy Education Cr. 3.
- READ 6340 Literacy in the Elementary School Cr. 3.
- READ 6350 Literacy in the Secondary School Cr. 3.
- READ 6700 Diversity and Equity in Literacy Cr. 3.
- READ 6310 Assessment and Intervention in Literacy Cr. 3.
- ELED 7400 The Literacy Language Arts Program Cr. 3.
- READ 7370 Linguistics: Theory and Application for Educators Cr. 3.
- READ 7500 Leadership in Literacy Education Cr. 3.
- READ 6800 Practicum Experiences in Literacy Cr. 3.

#### Research Coursework

- CUED 6300 Quantitative Educational Research Credit 3.
   OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Curriculum and Instruction, Music Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 9 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 18 hours
- Total Degree Requirements: 33 hours

#### **Core Concentration Coursework**

- FOED 6020 Perspectives in American Education Cr. 3.
- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education

- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Curriculum and Instruction, Secondary Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 12 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 15 hours
- Total Degree Requirements: 33 hours

#### **Core Concentration Coursework**

- CUED 6150 Middle School Curriculum Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3. OR
- FOED 7020 Philosophy and Public Policy Cr. 3.
- FOED 6320 Educational Applications of Technology Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.
# Curriculum and Instruction, Special Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 12 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 15 hours
- Total Degree Requirements: 33 hours

## Core Concentration Coursework

- SPED 6010 Survey of Disability Characteristics, Procedures, and Methods in Special Education Cr. 3.
- SPED 6040 Classroom Applications using Applied Behavior Analysis Cr. 3.
- SPED 6070 Individualized Educational Planning Credit 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

## **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

## Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading

- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, STEM Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 15 hours
- Advisor Guided Electives: 12 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- EDUS 7500 STEM Education Foundations Cr. 3. OR
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.
- CUED 6440 Emerging Technologies in Education Cr. 3. OR
- CUED 6450 Immersive Technologies for Teaching and Learning Cr. 3.

- ELED 6400 Advanced Studies in Elementary Science Education Cr. 3. OR
- ELED 6500 Diagnostic and Remediation Techniques in Elementary Mathematics Cr. 3. OR
- SEED 4122 (5122) Materials and Methods of Teaching Mathematics Cr. 3. OR
- SEED 4123 (5123) Materials and Methods of Teaching the Sciences Cr. 3.

## **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness

- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## Instructional Leadership, M.A.

https://www.tntech.edu/education/ci/graduate.php

Instructional Leadership, M.A. Program Information

## **Degree Requirements**

The Master of Arts in Instructional Leadership is a 33 hour degree program. This program prepares educational professionals for administrative career advancement.

- Core Coursework: 27 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

## Core Coursework

- INSL 6510 School Leadership, Law, Ethics, and Diversity Cr. 6.
- INSL 6560 Technology for Administrators Cr. 3.
- INSL 6520 School-Based Management and Community Relations Cr. 6.
- INSL 6530 Data Driven Curriculum: Development, Assessment and Evaluation Cr. 6.
- INSL 7010 Instructional Leadership Cr. 3.
- INSL 7400 School Leadership and Supervision Cr. 3.

## Research Coursework

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Learning Design and Technology, (MA)

The MA in Learning Design and Technology is an innovative program designed to prepare professionals in face-to-face and virtual positions in instructional design, virtual learning, and computer science education. Areas of the curriculum have flexibility that extends to the candidate's professional expertise. Emphasis is placed on leveraging technologies to enhance learning outcomes, including the use of multimedia, simulations, XR, and online platforms.

## Total Degree Requirements (33 Hours)

Core Concentration Coursework*	27 hours
Research Coursework	6 hours
Total Degree Requirements	33 hours

## Core Concentration Coursework (27 Hours)

Note: Core Concentration Courses listed below and denoted with \* meet the Computer Science Education Optional Embedded Certificate requirements. Core Concentration Courses denoted with \*\* meet the Instructional Design & Virtual Teaching Embedded Certificate Requirements.

- CSED 6000 Digital Literacy and Computing Cr. 3. \*
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3. \*
- CSED 6020 Computer Science Concepts and Design Cr. 3. \* OR
- CUED 7520 Teaching and Learning Online Cr. 3.
- CSED 6030 Computer Science Instructional Methods Cr. 3. \* OR
- CUED 6440 Emerging Technologies in Education Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- CUED 6430 Design Studio: Production of Instructional Materials Cr. 3. \*\*
- CUED 6450 Immersive Technologies for Teaching and Learning Cr. 3. \*\*
- CUED 7510 Instructional Design Foundations Cr. 3. \*\*
- CUED 7540 Applied Instructional Design and Learning Analytics Credit 3. \*\*

## **Research Coursework (6 Hours)**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.

- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Specialist in Education**

## Curriculum and Instruction, Applied Behavior Analysis Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework\*: 24 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 30 hours

\*If the student has completed CUED 6010 at the MA level, they will take a 3 credit hour Advisor Approved Elective as part of their 24 hour core requirement.

## **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \*If taken at the MA level, student will select another Advisor Guided Elective.
- EDUB 6000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 7010 Topics in Behavior Analysis Cr. 3.
- EDUB 7020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 7030 Assessment in Behavior Analysis Cr. 3.
- EDUB 7050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 7060 Ethics in ABA Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

## **Research Coursework**

- CUED 7910 Advanced Research Project in Education Cr. 3.
- EDU 7320 Research Methods in Behavior Analysis Cr. 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education

- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Curriculum Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 3-6 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 18-21 hours
- Total Degree Requirements: 30 hours

## **Core Concentration Coursework**

• CUED 6010 - Curriculum Development and Evaluation Cr. 3. \* \*If CUED 6010 is taken at the MA level, student will select another Advisor Guided Elective. • FOED 7020 - Philosophy and Public Policy Cr. 3.

## Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

## **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Early Childhood Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 12-15 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 9-12 hours
- Total Degree Requirements: 30 hours

## **Core Concentration Coursework**

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- SPED 6050 Introduction to Applied Behavior Analysis Cr. 3.
- READ 7020 Family Literacy Cr. 3.
- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective
- FOED 7020 Philosophy and Public Policy Cr. 3.

## Practicum and Research Coursework

- ECED 7800 Laboratory and Field Experiences in Education Cr. 3-4.
- ECED 7910 Independent Study in Education Cr. 3.

## Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education

- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Educational Technology Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 12-15 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 9-12 hours
- Total Degree Requirements: 30 hours

## Core Concentration Coursework

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will have to select another Advisor Guided Elective.
- CUED 6440 Emerging Technologies in Education Cr. 3.
- CUED 6460 Constructivist Strategies for Classroom Instruction Cr. 3.
- CUED 7430 Specialized Applications of Technology to Education Cr. 3.
- CUED 7530 Designing Integrated Technology Environments Cr. 3.

## Practicum and Research Coursework

• CUED 7801 - Lab and Field Experiences in Education/Technology Focus Cr. 3.

• CUED 7910 - Advanced Research Project in Education Cr. 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Elementary Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 6-9 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 15-18 hours
- Total Degree Requirements: 30 hours

## **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective.
- CUED 7010 Learning Theories Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

## Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy

- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Exercise Science Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Practicum and Research Coursework: 6 hours \*
- Advisor Guided Electives: 6 hours
- Total Degree Requirements: 30 hours

\* Student must take EXPW 6510 before CUED 7910 if no Research Methods or equivalent in Excercise Science on transcript (in place of one 3 hour elective course)

## Core Concentration Coursework

- CUED 7010 Learning Theories Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- EXPW 6600 Special Topics in Exercise Science Cr. 1-3. (3 credit hours required)
- EXPW 6440 Physiology of Exercise Cr. 3.
- EXPW 7000 Current Issues in Exercise Science, Health Behavior, and Wellness Education Cr. 3.
- EXPW 7010 Pedagogical Theory of Physical Education Cr. 3.

## Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.

• CUED 7910 - Advanced Research Project in Education Cr. 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Family and Consumer Sciences Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 6 hours
- Total Degree Requirements: 30 hours

## **Core Concentration Coursework**

- CUED 7010 Learning Theories Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- HEC 6630 Strategies and Advocacy for Families Cr. 3.
- HEC 6811 Learning and Instructional Strategies in Family Consumer Sciences Education Cr. 3.
- PSY 7200 Advanced Educational Psychology Cr. 3.

## Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior

- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Library Science Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 24 hours
- Practicum and Research Courses: 6 hours
- Total Degree Requirements: 30 hours

## Core Concentration Coursework

- CSED 6000 Digital Literacy and Computing Cr. 3. OR
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- LSCI 6010 Classification and Cataloging of Media and Materials Cr. 3.
- LSCI 6550 Contemporary Children's Literature Cr. 3. OR
- LSCI 6600 Literature Across the Curriculum Cr. 3.
- LSCI 7000 Information Literacy Tools and Services Cr. 3.
- LSCI 7030 Administration of the School Library Cr. 3.
- LSCI 7040 Technology Engagement and Support for Libraries Cr. 3.
- LSCI 7570 Contemporary Young Adult Literature Cr. 3

## Practicum and Research Coursework

- LSCI 7800 Library Practicum Cr. 3
- CUED 7910 Advanced Research Project in Education Cr. 3.

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Literacy Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## Degree Requirements

- Core Concentration Coursework: 27 hours
- Research Coursework: 3 hours
- Total Degree Requirements: 30 hours

## Core Concentration Coursework

- READ 6100 Uses of Technology in Literacy Education Cr. 3.
- READ 6340 Literacy in the Elementary School Cr. 3.
- READ 6350 Literacy in the Secondary School Cr. 3.
- READ 6700 Diversity and Equity in Literacy Cr. 3.
- READ 6310 Assessment and Intervention in Literacy Cr. 3.
- ELED 7400 The Literacy Language Arts Program Cr. 3.
- READ 7370 Linguistics: Theory and Application for Educators Cr. 3.
- READ 7500 Leadership in Literacy Education Cr. 3.
- READ 7800 Practicum Experiences in Literacy Cr. 3.

## **Research Coursework**

• CUED 7910 - Advanced Research Project in Education Cr. 3.

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Secondary Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 6-9 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 15-18 hours
- Total Degree Requirements: 30 hours

## **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \* If taken at the MA level, student will select another Advisor Guided Elective.
- PSY 7200 Advanced Educational Psychology Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

## Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior

- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Special Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## **Degree Requirements**

- Core Concentration Coursework: 9 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 15 hours
- Total Degree Requirements: 30 hours

## Core Concentration Coursework (9 hours)

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6070 Individualized Educational Planning Credit 3.

## **Research Coursework (6 hours)**

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, STEM Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

## Degree Requirements

- Core Concentration Coursework: 6-9 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives in STEM courses (EDUS 7500-EDUS 7580): 6 hours
- Advisor Guided Electives in STEM Education & Technology Courses: 9-12 hours
- Total Degree Requirements: 30 hours

## Core Concentration Coursework

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective.
- EDUS 7500 STEM Education Foundations Cr. 3. OR
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.
- CUED 7510 Instructional Design Foundations Cr. 3. OR
- CUED 7520 Teaching and Learning Online Cr. 3. OR
- CUED 7530 Designing Integrated Technology Environments Cr. 3.

#### **Practicum and Research Coursework**

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

## **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior

- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Instructional Leadership, Ed.S.

https://www.tntech.edu/education/ci/graduate.php

Instructional Leadership, Ed.S. Program Information

## Degree Requirements

The Education Specialist degree (Ed.S.) is a 30 hour degree program. This program prepares educational professionals for positions as school administrators in the state of Tennessee.

- Core Coursework: 24 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 30 hours

## Core Coursework:

- INSL 7510 School Leadership Law and Ethics Cr. 6.
- INSL 7520 Human Resources Management and Public Relations Cr. 6.
- INSL 7530 Assessment and Evaluation: Improvement in Teaching Cr. 6.
- INSL 7010 Instructional Leadership Cr. 3.
- INSL 7400 School Leadership and Supervision Cr. 3.

## Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.

• CUED 7910 - Advanced Research Project in Education Cr. 3.

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Students Engaging, Responding, Volunteering, & Impacting Communities Everywhere (SERVICE) Certificate

# Students Engaging, Responding, Volunteering, & Impacting Communities Everywhere (SERVICE) Certificate

The Students Engaging, Responding, Volunteering, & Impacting Communities Everywhere (SERVICE) Certificate requires 12 credit hours of coursework (or equivalent). The certificate requires 6 credit hours of coursework to come from the College of Education and provides the option of the additional 6 hours to be attained from any TTU unit with appropriate service learning courses/options available. Service Learning opportunities are available in a number of courses offered by the Department of Curriculum and Instruction, but students may also accumulate hours by self- identifying and pursuing service learning opportunities in the community.

Up to 6 credit hours of the 12 required may be certified by completing the equivalent of 90 clock hours (1 credit hour = 15 clock hours) of service learning. These hours must be pre-approved by the TTU Office of Service Learning who will track hours accumulated and maintain records of completion. Students will be able to count these hours in the certificate by enrolling in a Service Learning course (zero credits; no cost) in the semester in which the hours are completed.

- The definition(s) of Service Learning as documented by the TTU Office of Service Learning will be used to guide decisions concerning what activities can be approved for the certificate. Decisions of that office will preside.
- 2. Coursework/clock hours for service learning in which students are receiving compensation (e.g., paid tutoring) and/or financial gain (e.g., scholarships) cannot be counted for the certificate as this would constitute double-dipping.

Students may choose from among the courses listed below. Special topics courses can be offered at both undergraduate and graduate levels as needed to provide additional opportunities. Please talk with the Department of Curriculum & Instruction for details.

Students may also take any course certified by the TTU Office of Service Learning as eligible (see their website each semester for updated lists).

## **Certificate Requirements**

• College of Education Courses (see appropriate list of courses below): 6-12 credit hours\*

- Advisor Guided Electives (see appropriate list of courses below) or Pre-Approved clock hours: 6 credit hours
- TOTAL: 12 credit hours

\*Note: Certificate requires 6 credit hours of coursework to come from within the College of Education. (See list of course prefixes listed below.)

## Courses Open to Education Majors

- SEED 4322 (5322) Teaching Algebra in Middle/High School Cr. 3.
- SPED 4200 (5200) Teaching Students with Autism Spectrum Disorders Cr. 3.

## Courses Open to All Majors

- CUED 4750 (5750) Service Learning Informal STEM Education Cr. 0-3.
- CUED 4850 (5850) Workshop in Education Cr. 1-6.
- CUED 4900 (5900) Study Abroad Cr. 1-6.
- CUED 6750 (7750) Service Learning Informal STEM Education Cr. 0-3.
- SVCL 4150 (5150) Topics Cr. 0-9.
- SVCL 6150 (7150) Topics Cr. 0-9.
- SVCL 4920 (5920) Service Learning in Your Community Cr. 0-3.
- SVCL 6920 (7920) Service Learning in Your Community Cr. 0-3.

## College of Education Course Prefixes

- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning

- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Computer Science Education Certificate**

## **Computer Science Education Certificate**

The Certificate in Computer Science Education is the first computer science education licensure option in the State of Tennessee. This program allows the preservice and inservice teacher to receive license endorsements, while promoting and integrating computer science education in the K-12 environment. The curriculum is a combination of courses designed around state and national standards for computer science education. The certificate is 12 credit hours, and includes courses in Curriculum and Instruction.

The certificate is open to all graduate students admitted to Tennessee Tech University. Students outside of the Curriculum and Instruction major will coordinate academic advising with the students major advisor and an advisor in Curriculum and Instruction.

## Certificate Requirements

- CSED 6000 Digital Literacy and Computing Cr. 3.
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3.
- CSED 6020 Computer Science Concepts and Design Cr. 3.
- CSED 6030 Computer Science Instructional Methods Cr. 3.

## Total hours required: 12

# Certificate

## Instructional Design and Virtual Teaching Certificate

The Instructional Design and Virtual Teaching certificate program is designed to enhance current concentrations within Curriculum and Instruction and create new pathways for faculty, administration, and students in this rapidly expanding field. This certificate is open to all graduate students at Tennessee Tech.

- Core Required Courses: 12 hours
- TOTAL: 12 hours

The certificate consists of a four-course sequence that is developed to support and prepare professionals for the challenges and opportunities of instructional design and virtual teaching principles. The certificate has a defined set of four core courses for a total of 12 hours. Core course requirements include the following courses:

## Certificate Requirements (12 Hours)

- CUED 6430 Design Studio: Production of Instructional Materials Cr. 3.
- CUED 6450 Immersive Technologies for Teaching and Learning Cr. 3.
- CUED 7510 Instructional Design Foundations Cr. 3.
- CUED 7540 Applied Instructional Design and Learning Analytics Credit 3.

## **Department of Exercise Science**

- Exercise Science Website
- Department of Exercise Science Information

Christy Killman, Chairperson and Departmental Graduate Coordinator/Advisor

Departmental Graduate Faculty: Christy Killman, Ajit Korgaokar, David Mann, Anthony Mortara, Greg Palevo, Michael Phillips, Jessica Richards, Scott Smith, and Lisa Witherspoon

# **Master of Arts**

# Exercise Science, Adapted Physical Education Concentration, M.A.

## Degree Requirements

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

## Degree Requirement

- Core Required Courses: 6 hours
- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

## Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

## Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

## Adapted Physical Education Concentration (15 hours)

- SPED 6010 Survey of Disability Characteristics, Procedures, and Methods in Special Education Cr. 3.
- SPED 6060 Education of Orthopedic and Motor Impaired Cr. 3.
- EXPW 6140 Assessment and Strategies for Adapted Physical Education Cr. 3.
- Electives 6 credit hours from any EXPW 5000-6000 or SPED 5000-6000 level course.

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exercise Science, Elementary & Middle School Physical Education Concentration, M.A.

## Degree Requirements

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

## Degree Requirement

- Core Required Courses: 6 hours
- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

## Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

## Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

## Elementary & Middle School Physical Education Concentration (15 hours)

- EXPW 6210 Curriculum Design in Physical Education Cr. 3.
- EXPW 6350 Instructional Strategies for Physical Education Cr. 3.
- EXPW 6450 Teaching Middle School Physical Education Cr. 3.

- EXPW 6140 Assessment and Strategies for Adapted Physical Education Cr. 3. OR
- EXPW 6250 Applied Motor Development and Motor Learning Cr. 3. OR
- EXPW 6700 Independent Study Cr. 1-3.
- Electives 3 credit hours from any EXPW 5000-6000 level course.

# Teacher Licensure Option (EMPE requirement plus 20 credit hours for licensure)

Student must be admitted to Teacher Education program.

- EXPW 6140 Assessment and Strategies for Adapted Physical Education Cr. 3.
- EXPW 6210 Curriculum Design in Physical Education Cr. 3.
- EXPW 6350 Instructional Strategies for Physical Education Cr. 3.
- EXPW 6450 Teaching Middle School Physical Education Cr. 3.
- Advisor Guided Elective 3 credit hours. (EXPW 5000,6000, or 7000 level)

## Licensure Requirement (20 credit hours)

(Only students who's concentration is EMPE may take the additional 20 hours to gain the k-12 PE teaching license.)

- EXPW 6100 Instruction in Physical Education Cr. 3.
- EXPW 6595 Field Experience in Physical Education Cr. 3.
- EXPW 6880 Student Teaching in Physical Education Cr. 9.
- EXPW 6881 Professional Seminar in Physical Education Cr. 2.
- EXPW 6440 Physiology of Exercise Cr. 3. OR
- EXPW 5940 Fitness and Wellness Cr. 3.

## **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exercise Science, Fitness and Lifetime Wellness Concentration, M.A.

## **Degree Requirements**

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

## Degree Requirement

- Core Required Courses: 6 hours
- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

## Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

## Fitness and Lifetime Wellness Concentration (15 hours)

- EXPW 5940 Fitness and Wellness Cr. 3.
- EXPW 6042 Wellness Promotion Cr. 3.
- EXPW 6440 Physiology of Exercise Cr. 3.
- EXPW 6250 Applied Motor Development and Motor Learning Cr. 3. OR
- EXPW 6590 Field Experience Cr. 3. OR
- EXPW 6720 Legal, Ethical & Risk Management Issues in Sport Management Cr. 3.
- Elective 3 credit hours from any EXPW 5000-6000 level course.

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exercise Science, Sport Management Concentration, M.A.

## **Degree Requirements**

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

## Degree Requirement

• Core Required Courses: 6 hours

- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

## Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

## Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

## Sport Management Concentration (18 hours)

- EXPW 6710 Leadership and Management in Sport Cr. 3.
- EXPW 6720 Legal, Ethical & Risk Management Issues in Sport Management Cr. 3.
- EXPW 6730 Administration and Supervision of Sport Cr. 3.
- EXPW 6740 Sport Marketing and Promotions Cr. 3.
- EXPW 6750 Design & Management of Leisure & Sport Facilities Cr. 3.
- EXPW 6760 Internship in Sport Management Cr. 3.

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

## **College of Education Information**

The College of Education offers a variety of graduate programs at the Master of Arts (M. A.), Specialist in Education (Ed. S.), and Doctorate (Ph.D.) degree levels. All professional education programs offered in the College are accredited by the Council for the Accreditation of Educator Preparation (CAEP) and are designed to prepare teachers, school support personnel, and administrators for the elementary and secondary schools and other service provider agencies in the Upper Cumberland of Tennessee as well as other locations in the nation. The Ph.D. program will prepare leaders to work in schools, agencies, and universities.

## **Department of Counseling and Psychology**

## **Department of Counseling and Psychology**

Department of Counseling and Psychology Website

• Department of Counseling and Psychology Information Stephanie Kazanas, Interim Department Chairperson

Departmental Graduate Faculty: Ellen Blaylock, Chris Burgin, Jann D. Cupp, Christina Dukes, Tammy L. Dukewich, Derrick Edwards, Angelica Galvan, Laura Haddock, Kevin Harris, Nicole Henniger, Kathryn Hermann-Turner, Stephanie Kazanas, Kathryn Kozak, Mark Loftis, Laura Yvonne Malone, Tony Michael, Brittney Phillips, Tabitha Schlatter, Dawn-Elise Snipes, Sandra Terneus, Wesley Webber, Marisa White, Zachary Wilcox, Matthew J. Zagumny

# **Doctor of Philosophy**

# Counseling and Supervision, Ph.D.

Counseling and Supervision, Ph.D. Program Information

## Degree Requirements

The Ph.D. in Counseling and Supervision is a 48 credit hour doctoral degree program. The program consists of three degree components: Counseling and Supervision Core Coursework; Research Coursework; and Dissertation Research.

- Counseling and Supervision Core Coursework: 21 hours
- Research Core Coursework: 18 hours
- Dissertation Research: 9 hours
- Total Degree Requirements: 48 hours

Note: Two prerequisite and/or support courses (PSY 6310, PSY 6930) may be required as determined by the advisor.

## Counseling and Supervision Core Coursework (21 hours)

- COUN 7320 Advanced Group Counseling in Addiction and Special Populations Credits. 3.
- COUN 7370 Counseling Supervision Cr. 3.
- COUN 7400 Advanced Counseling Practicum Credits. 3.
- COUN 7500 Research, Scholarship, and Publication Credits. 3.
- COUN 7610 Teaching in Counselor Education Credits 3.
- COUN 7700 Advanced Multicultural Counseling: Leadership and Advocacy Credit. 3.
- COUN 7840 Regional Mental Health and Addiction Services Credits. 3.

## Research Core Coursework (18 hours)

- PSY 7310 Advanced Educational Statistics Cr. 3.
- COUN 7510 Counseling Administration and Program Evaluation Credits. 3.

- COUN 7730 Qualitative Research Methods in Counseling Credits. 3.
- COUN 7740 Advanced Quantitative Inquiry and Research Design Credit. 3. OR
- COUN 7750 Advanced Qualitative Inquiry and Research Design Credits. 3.
- COUN 7820 Doctoral Internship Credits. 3. \*
  \*6 credit hour requirement. Students must take COUN 7820 over two semesters (6 credit hours) rather than one (3 credit hours).

## Advisor Guided Electives

Research core requirements include an option of one elective. Electives may be taken in the COUN or PSY areas at the 6000 or 7000 level.

## Dissertation Research (9 hours)

Nine (9) credit hour minimum. Ph.D. candidates may take more than the 9 credit hour minimum as necessary to successfully complete their dissertation research.

 COUN 7990 - Dissertation Research Credits. 1-9 variable credit hours. \* \* 9 credit hour requirement.

## Prerequisite Courses (6 hours)

The advisor will determine if prerequisite courses are required.

- PSY 6310 Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

## **Master of Arts**

## Counseling and Psychology, Clinical Mental Health Counseling Concentration, M.A.

#### **Degree Requirements**

The Master of Arts degree in Counseling and Psychology is designed to prepare students for exciting and challenging careers. Concentration areas include: Clinical Mental Health Counseling, Psychology, School Counseling, and School Psychology. The program consists for core counseling courses, core non-counseling courses, guided electives and core concentration courses.

Clinical Mental Health Concentration and the School Counseling Concentration consists of 60 hours. Students may also pursue Dual Licensure by adding an 18-hour Ed.S. degree in Clinical Mental Health Counseling or School Counseling.

School Psychology Concentration consists of 33-36 hours.

- Counseling Core Required Courses: 30 hours
- Non-Counseling Core Required Courses: 6 hours
- Advisor Guided Electives: 9 hours
- Concentration Core Courses: 15 hours
- Total Degree Requirement: 60 hours

## Counseling Core Required Courses (30 hours)

- COUN 6000 Counseling Across the Lifespan Cr. 3.
- COUN 6300 Introduction to Counseling: Foundations, Ethics, and Legal Issues Cr. 3.
- COUN 6320 Group Counseling Cr. 3.
- COUN 6360 Counseling Skills Cr. 3.
- COUN 6362 Counseling Theories Cr. 3.
- COUN 6380 Multicultural Counseling Cr. 3.
- COUN 6410 Career Counseling and Development Cr. 3.
- COUN 6670 Assessment in Counseling Cr. 3.
- COUN 6680 Trauma, Grief, and Crisis Counseling Cr. 3.
- COUN 6800 Practicum Cr. 3.

## Non-Counseling Core Required Courses (6 hours)

- PSY 6310 Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

## Advisor Guided Electives (9 hours)

Selection of appropriate courses (PSY 5XXX-PSY 7XXX, and COUN 5XXX-COUN 7XXX) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Concentration Core Requirements (15 hours)

- COUN 6370 Family Counseling Cr. 3.
- COUN 6460 Addiction Counseling Cr. 3.
- COUN 6820 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 6821 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 7600 Diagnosis and Treatment Cr. 3.

## **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, Psychology Concentration, M.A.

## Degree Requirements

The M.A. in Counseling and Psychology includes a concentration in Psychology. Students will choose between Plan I or Plan II. This program consists of 30 hours.

## Plan I

- PSY 5000 level Advisor Guided Electives: 0-9 hours
- PSY 6000/7000 level Advisor Guided Electives: 6-21 hours
- Plan I Course Requirements (listed below): 9 hours
- Total Degree Requirements: 30 hours

## Plan II - Thesis

- PSY 5000 level Advisor Guided Electives: 0-9 hours
- PSY or COUN 6000/7000 level Advisor Guided Electives: 6-21 hours
- Plan II Course Requirements (listed below): 6 hours
- Research and Thesis PSY 6990: 6-9 hours
- Total Degree Requirement: 30 hours

## Advisor Guided Electives (9 hours)

Selection of appropriate courses (PSY 5XXX-PSY 7XXX, and COUN 5XXX-COUN 7XXX) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Plan I Course Requirements

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.
- Plus 3 hours of Advisor Guided Electives Cr. 3.

## Plan II Course Requirements

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- FOED 6920 Educational Research Cr. 3. OR
- PSY 7900 Independent Study in Educational Psychology Cr. 3.

## **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, School Counseling Concentration, M.A.

## Degree Requirements

The Master of Arts degree in Counseling and Psychology is designed to prepare students for exciting and challenging careers. Concentration areas include: Clinical Mental Health Counseling, Psychology, School Counseling, and School Psychology. The program consists for core counseling courses, core non-counseling courses, guided electives and core concentration courses.

Clinical Mental Health Concentration and the School Counseling Concentration consists of 60 hours. Students may also pursue Dual Licensure by adding an 18-hour Ed.S. degree in Clinical Mental Health Counseling or School Counseling.

School Psychology Concentration consists of 33-36 hours.

- Counseling Core Required Courses: 30 hours
- Non-Counseling Core Required Courses: 6 hours
- Advisor Guided Electives: 9 hours
- Concentration Core Courses: 15 hours
- Total Degree Requirement: 60 hours

## Counseling Core Required Courses (30 hours)

- COUN 6000 Counseling Across the Lifespan Cr. 3.
- COUN 6300 Introduction to Counseling: Foundations, Ethics, and Legal Issues Cr. 3.
- COUN 6320 Group Counseling Cr. 3.
- COUN 6360 Counseling Skills Cr. 3.
- COUN 6362 Counseling Theories Cr. 3.
- COUN 6380 Multicultural Counseling Cr. 3.
- COUN 6410 Career Counseling and Development Cr. 3.
- COUN 6670 Assessment in Counseling Cr. 3.
- COUN 6680 Trauma, Grief, and Crisis Counseling Cr. 3.
- COUN 6800 Practicum Cr. 3.

## Non-Counseling Core Required Courses (6 hours)

- PSY 6310 Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

## **Advisor Guided Electives (9 hours)**

Selection of appropriate courses (PSY 5XXX-PSY 7XXX, and COUN 5XXX-COUN 7XXX) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Concentration Core Courses (15 hours)

School Counseling follows the same Counseling Core Course Requirements, Non-Counseling Core Requirements, and Advisor Guided Electives as listed above for Clinical Mental Health Counseling. The two programs differ by concentration courses.

- COUN 6330 Organization and Administration in School Counseling Programs Cr. 3.
- COUN 6335 Professional Issues in the Educational Settings Cr. 3.
- COUN 6385 Counseling Children and Adolescents Cr. 3.
- COUN 6830 Internship in School Counseling Cr. 3, 6.
- COUN 7830 Internship in School Counseling Cr. 3, 6.

## Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, School Psychology Concentration, M.A.

## **Degree Requirements**

The MA in Counseling and Psychology with a concentration is School Psychology is a 33-36 hour nonlicensure option. Degree requirements include:

#### Plan I

- Required Core Courses: 24 hours
- Plan I Required Courses: 12 hours
- Total Degree Requirement Plan I: 36 hours

## Plan II

- Required Core Courses: 24 hours
- Plan II Required Courses: 9 hours
- Total Degree Requirement Plan II: 33 hours

Note: The School Psychology Concentration may require 15 hours of background courses. See your advisor to discuss the addition of background courses to your program hours.

## Required Core Courses (24 hours)

- PSY 4160 (5160) Abnormal Psychology Cr. 3.
- PSY 7730 Individual Testing Cr. 3.
- PSY 7200 Advanced Educational Psychology Cr. 3.
- COUN 6300 Introduction to Counseling: Foundations, Ethics, and Legal Issues Cr. 3.
- COUN 6320 Group Counseling Cr. 3.
- COUN 6360 Counseling Skills Cr. 3.
- COUN 6362 Counseling Theories Cr. 3.
- COUN 6800 Practicum Cr. 3.
# Required Courses: Plan I (12 hours)

The following courses are required for a student selecting Plan I of the School Psychology concentration.

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- FOED 6920 Educational Research Cr. 3. OR
- PSY 7900 Independent Study in Educational Psychology Cr. 3.
- PSY 6990 Research and Thesis Cr. 1-9.

## Required Courses: Plan II (9 hours)

Students enrolling in Plan II of the School Psychology concentration must take the following courses (6 hours) and also select one additional advisor recommended elective (3 hours).

- PSY 6310 Educational Statistics Cr. 3. OR
- PSY 7310 Advanced Educational Statistics Cr. 3.
- PSY 6930 Interpreting and Applying Psychological Research Cr. 3.

## School Psychology Concentration Background Courses

Your advisor will determine what background courses you may need for the degree program. Typically the following background courses are required:

- PSY 4050 (5050) Learning and Cognition Cr. 3.
- PSY 4100 (5100) Child Psychology Cr. 3.
- PSY 4150 (5150) Psychology of Personality Cr. 3.
- PSY 4200 (5200) Adolescent Psychology Cr. 3.
- PSY 4250 (5250) Introduction to Psychological Testing Cr. 3.

# **Specialist in Education**

# Counseling and Psychology, Clinical Mental Health Counseling Concentration, Ed.S.

Counseling and Psychology EdS Program Information

#### Degree Requirements

A minimum of 30 semester hours beyond the master's degree is required. At least 15 semester hours must be taken in courses numbered at the 7000 level and no courses below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Director of Graduate Studies.

In the Department of Counseling and Psychology, a maximum of three (3) semester hours of departmentally approved 5000-level credit may be included in a Specialist in Education Degree program of study.

Upon approval from the student's advisory committee, up to twelve (12) credit hours from a previously earned 60 hour master's degree program, can be counted toward the Ed.S. degree.

#### **Concentration Requirements**

The Ed.S. in Clinical Mental Health Counseling consists of 15 guided electives plus 15 credit hours of concentration course blocks as defined below.

Students who have completed a 60 hour Master's degree in counseling only need to complete one of the 18 hour blocks below that they have not already completed in their Master's degree.

- Required Concentration Courses: 15 hours
- Advisor Guided Electives: 15 hours
- Total Degree Requirement: 15 hours

## Required Concentration Courses (15 hours)

- COUN 6370 Family Counseling Cr. 3.
- COUN 6460 Addiction Counseling Cr. 3.
- COUN 6820 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 6821 Internship in Mental Health Counseling Cr. 3, 6.
- COUN 7600 Diagnosis and Treatment Cr. 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education

- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, School Counseling Concentration, Ed.S.

Counseling and Psychology EdS Program Information

#### **Degree Requirements**

A minimum of 30 semester hours beyond the master's degree is required. At least 15 semester hours must be taken in courses numbered at the 7000 level and no courses below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Director of Graduate Studies.

In the Department of Counseling and Psychology, a maximum of three (3) semester hours of departmentally approved 5000-level credit may be included in a Specialist in Education Degree program of study.

Upon approval from the student's advisory committee, up to twelve (12) credit hours from a previously earned 60 hour master's degree program, can be counted toward the Ed.S. degree.

#### **Concentration Requirements**

The Ed.S. program in School Counseling consists of 15 guided electives plus 15 credit hours in the required concentration courses. Students who have completed a 60 hour Master's program in counseling only need to complete the 18 credit hours below that they have not already completed in their Master's degree.

- Required Concentration Courses: 15 hours
- Advisor Guided Electives: 15 hours
- Total Requirements: 30 hours

# Required Concentration Courses (15 hours)

- COUN 6385 Counseling Children and Adolescents Cr. 3.
- COUN 6330 Organization and Administration in School Counseling Programs Cr. 3.
- COUN 6335 Professional Issues in the Educational Settings Cr. 3.
- COUN 6830 Internship in School Counseling Cr. 3, 6.
- COUN 7830 Internship in School Counseling Cr. 3, 6.

#### Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Counseling and Psychology, School Psychology Concentration, Ed.S.

Counseling and Psychology EdS Program Information

#### **Degree Requirements**

A minimum of 30 semester hours beyond the master's degree is required. At least 15 semester hours must be taken in courses numbered at the 7000 level and no courses below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Director of Graduate Studies.

In the Department of Counseling and Psychology, a maximum of three (3) semester hours of departmentally approved 5000-level credit may be included in a Specialist in Education Degree program of study.

Upon approval from the student's advisory committee, up to twelve (12) credit hours from a previously earned 60 hour master's degree program, can be counted toward the Ed.S. degree.

#### **Concentration Requirements**

The Ed.S. concentration in School Psychology is a 30 hour program and consists of 9 required courses as defined below. However, additional courses may be required for the School Psychologist Endorsement.

• Required Concentration Courses: 30 hours

## **Required Concentration Courses**

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- PSY 7170 Consultation in the Education Setting Cr. 3.
- PSY 7310 Advanced Educational Statistics Cr. 3.
- PSY 7610 Introduction to Personality Assessment Cr. 3.
- PSY 7900 Independent Study in Educational Psychology Cr. 3.
- PSY 7910 Assessment and Intervention Cr. 3.
- PSY 7920 Assessment and Intervention Cr. 3.
- PSY 7950 Internship in School Psychology Cr. 3. \*
   \* Two courses of three semester hours each, taken over two semesters, for a total of 1200 clock hours.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# **Department of Counseling and Psychology Information**

• Departmental Overview

- Counseling and Psychology Fast Track Program
- Ph.D. Counseling and Supervision
- Master of Arts Degree Admission Requirements
- Specialist in Education Degree Admission Requirements
- Specialist in Education Degree General Requirements
- Transfer and Other Credit
- Other Regulations

#### **Departmental Overview**

A primary purpose of the department is to offer strong academic programs in the preparation for a career in counseling and psychology. Graduate programs are offered at the Master of Arts, Specialist in Education, and Ph.D. levels. The MA and EdS in Counseling and Psychology offer a number of concentrations available in each of these programs. The degree programs in Counseling and Psychology each consist of a counseling concentration, appropriate cognate area, and a research component. Concentrations are available in:

- Psychology
- Clinical Mental Health Counseling (Master's level only)
- School Counseling
- School Psychology

The department also offers a Ph.D. in Counseling and Supervision.

• Counseling and Supervision, Ph.D.

#### Counseling and Psychology Fast Track Program

The Fast Track program is designed to enable Tennessee Tech undergraduates to accumulate up to six (6) credit hours of graduate coursework in Counseling and Psychology while still pursuing their undergraduate degree and to transition to the Counseling and Psychology graduate program smoothly, with accelerated completion.

Up to six (6) hours of graduate coursework can be used to satisfy both undergraduate and graduate degree requirements. These courses must be taken at Tennessee Tech University.

The minimum admission requirements for participating in the C&P Fast Track Program are:

- Enrolled as a Tennessee Tech undergraduate Psychology major with senior standing.
- Overall GPA of at least 3.0 or better.
- Approval from the student's undergraduate advisor and two other upper division psychology faculty at TTU who have been the student's instructor for at least one course at TTU.
- Course approval from C&P graduate faculty or graduate faculty advisor.

• All requirements for full admission to Graduate School must be met upon graduation. Program participants should consult with their undergraduate and/or future graduate advisor regarding appropriate graduate courses to take and must earn a minimum grade of "B" in the graduate courses in order to apply them to their M.A. program of study. Students who do not succeed in their first graduate course during their senior year (B grade or better) will be advised to withdraw from the Fast Track program and complete their B.S. degree in a normal manner.

Fulfilling the above minimum requirements does not guarantee admission to the Fast Track program. Students who meet the above minimum admission requirements must apply to the Department for

admission to the Fast Track program. The department's graduate committee will review the application and make a decision for approval.

#### Ph.D. Counseling and Supervision

Counseling and Supervision, Ph.D. Admission and Degree Requirements

#### Master of Arts Degree Admission Requirements

Students pursuing graduate study in the Department of Counseling and Psychology can select from among several concentrations that are designed to lead to licensure in the State of Tennessee or that lead to non-licensure degrees.

#### Admission Criteria

The Department offers admission to applicants who appear to have the highest potential for graduate study and who have the disposition to be successful in their concentration. The recommended admission requirements are:

- 1. A bachelor's degree from an accredited institution.
- 2. Satisfactory undergraduate grade point average, usually a minimum of 3.0 on a 4.0 scale.
- 3. Enough undergraduate training in psychology or related work experience to do graduate work in the chosen concentration.
- Three acceptable letters of recommendation for graduate study from faculty members or other persons who have adequate knowledge of the applicant's professional qualities or potential for success as a graduate student.
- 5. Successful interview with faculty review committee with a focus on dispositional congruence, personal intent, and professional aspirations.
- 6. While not required, an applicant may submit GRE General Test (GRE) scores for consideration to address their aptitude for graduate-level academic work.

Satisfying recommended standards, however, does not guarantee your admission. Admission decisions are based on departmental review, using a combination of holistic factors, including an interview, letters of recommendation, academic history, and related work experience.

Students may be admitted with provisional status if they do not meet all of the criteria above but do meet the minimum requirements of the College of Graduate Studies and are approved for provisional status by the departmental admissions committee. Provisional status will limit students to a maximum of nine (9) hours before the departmental admissions committee makes a recommendation for full admission. To advance from provisional to full admission a student must earn a 3.0 GPA on the nine (9) semester hours of graduate study in the concentration and be approved by the departmental admissions committee.

#### Evidence of English Language Proficiency

All applicants from countries in which the official language is not English are required to submit evidence of proficiency in English equivalent to level 9 in FLS.

#### Specialist in Education Degree Admission Requirements

Students pursuing graduate study in the Department of Counseling and Psychology can select from among several concentrations that are designed to lead to licensure in the State of Tennessee or that lead to nonlicensure degrees.

#### Admission Criteria

The department offers admission to applicants who appear to have the highest potential for graduate study and who have the disposition to be successful in their concentration. The minimum admission requirements are:

A Master's degree from an accredited institution.

Satisfactory graduate grade point average of 3.5 on a 4.0 scale.

Enough graduate training in psychology to do advanced graduate work in the chosen concentration.

Three acceptable letters of recommendation for graduate study from faculty members or other persons who have adequate knowledge of the applicant's professional qualities or potential for success as a graduate student.

A score of 400 (old format) or 146 (new format) on the verbal portion, a 4.0 score on the analytical writing portion, and a preferred score of 400 (old format) or 140 (new format) quantitative portions of the General Record Examination (GRE).

Satisfying minimal standards, however, does not guarantee your admission. Admission decisions are based on departmental review, using a combination of factors, including an interview to evaluate relevant dispositions for professionals in the chosen concentration.

Students may be admitted with provisional status if they do not meet all of the criteria above but do meet the minimum requirements of the graduate school and are approved for provisional status by the departmental admissions committee. Provisional status will limit students to a maximum of nine hours before the departmental admissions committee makes a recommendation for full admission. To advance from provisional to full admission a student must earn a 3.0 GPA on the nine semester hours of graduate study in the concentration and be approved by the departmental admissions committee.

#### Evidence of English Language Proficiency

All applicants from countries in which the official language is not English are required to submit evidence of proficiency in English equivalent to level 9 in FLS.

#### Specialist in Education Degree General Requirements

The program of study leading to the Specialist in Education degree (Ed. S.) will be designed for each student so as to achieve proper balance between the experiences required for training as a specialist and those required for development as a professional working with others. The program will therefore be tailored to serve the needs and objectives of the individual student.

If a student lacks not more than 12 semester credits on the master's degree, the student may accumulate a maximum of 9 semester credits to be counted toward the Ed. S. degree provided the student (i) has been approved for tentative Ed. S. admission by the Graduate School, (ii) has a departmentally approved program of study, and (iii) fulfills all requirements for the master's degree within two (2) consecutive semesters.

A minimum of 30 semester hours beyond the master's degree, in approved upper-level courses, will be required in the Ed. S. program. At least 15 semester hours must be taken in courses numbered at the 7000 level; no course below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Associate Dean of the College of Graduate Studies.

Although a thesis is not required in the specialist program, the student is expected to become well acquainted with research in the field of specialization and to demonstrate competence in research methodology. In order to satisfy these expectations, the student must earn at least three (3) semester hours in courses of a laboratory and/or field experience nature and three (3) semester hours in an independent study project.

#### Transfer and Other Credit

Each candidate for the Ed.S. degree must complete a minimum of 24 semester hours credit at Tennessee Technological University.

A maximum of six (6) semester hours of transferred work with a minimum grade of "B" in each course may be included in the student's program of study. Such work must have been completed at an accredited institution which offers the Master's, Specialist's and/or Doctor's Degree (for a list of accrediting agencies recognized, refer to the U.S. Department of Education website). Credit earned through correspondence or extension courses will not be accepted toward the Ed.S. Degree.

Credit by special examination is not permitted at the graduate level; however, special examinations to determine competency or proficiency in courses where credit has already been earned but is currently outof-date may be permitted during a period of up to three (3) consecutive semesters immediately following the six-year time limitation. Special examinations may also be permitted to validate transfer credit, but the credit must be originally earned as graduate credit and not undergraduate credit.

#### Other Regulations

In addition to these specific requirements for the Specialist in Education Degree, all candidates will be expected to comply with general regulations of the Graduate School. (See Regulations and Degree Requirements in previous sections of this catalog.)

# **Counseling and Psychology EdS Program Information**

#### Admission

#### Ed.S. Degree Admission Criteria

Students pursuing graduate study in the Department of Counseling and Psychology can select from among several concentrations that are designed to lead to licensure in the State of Tennessee or that lead to nonlicensure degrees.

#### Admission Criteria

The department offers admission to applicants who appear to have the highest potential for graduate study and who have the disposition to be successful in their concentration.

The minimum admission requirements are:

- A Master's degree from an accredited institution.
- Satisfactory graduate grade point average of 3.5 on a 4.0 scale.
- Enough graduate training in psychology to do advanced graduate work in the chosen concentration.

- Three acceptable letters of recommendation for graduate study from faculty members or other
  persons who have adequate knowledge of the applicant's professional qualities or potential for
  success as a graduate student.
- Successful interview with the faculty review committee with a focus on dispositional congruence, personal intent, and professional aspirations.
- While not required, an applicant may submit GRE General Test (GRE) scores for consideration to address their aptitude for graduate level academic work.
- Satisfying minimal standards, however, does not guarantee your admission. Admission decisions are based on departmental review, using a combination of holistic factors, including an interview, letters of recommendation, academic history, and related work experience.
- Students may be admitted with provisional status if they do not meet all of the criteria above but do
  meet the minimum requirements of the graduate school and are approved for provisional status by
  the departmental admissions committee. Provisional status will limit students to a maximum of nine
  hours before the departmental admissions committee makes a recommendation for full admission.
  To advance from provisional to full admission a student must earn a 3.0 GPA on the nine semester
  hours of graduate study in the concentration and be approved by the departmental admissions
  committee.

#### **Evidence of English Language Proficiency**

All applicants from countries in which the official language is not English are required to submit evidence of proficiency in English equivalent to level 9 in FLS.

# **Counseling and Supervision, Ph.D. Program Information**

Key features of this 48-hour doctoral degree program include: it is designed to meet CACREP standards; and places an emphasis on rural mental health issues.

The profile of an applicant for this program is a professional who: 1) holds a master's degree in counseling and has related professional experience; 2) is interested in furthering their career by pursuing opportunities in counselor education, supervision, program evaluation, and other advanced positions; and 3) is committed to effecting change in regional mental health issues such as addictions.

#### Admission Requirements

The Ph.D. in Counseling and Supervision is a terminal degree. The department offers admission to applicants who appear to have the highest potential for success and the appropriate disposition for counseling and supervision in the Ph.D. program.

The recommended admission requirements are:

- A 3.5 grade point average (GPA) from an accredited Master's level program in a counseling or closely related program. Preference will be given to individuals who graduated from a CACREPaccredited program.
- Official transcripts from an accredited undergraduate and graduate institution, as well as transcripts from any additional institutions of higher education attended.
- Three acceptable letters of recommendation for graduate study from either former faculty members
  or other persons with adequate knowledge of the applicant's professional qualities and/or potential
  for success in a Ph.D. program (faculty review committee reserves the right to determine suitability
  of the letters.)

- While not required, an applicant may submit GRE General Test (GRE) scores for consideration to address their aptitude for graduate-level academic work.
- An English proficiency equivalent of Level 9 in FLS (applicable to those applicants from countries in which the official language is other than English).
- Successful interview with the faculty review committee with a focus on dis-positional congruence, personal intent, and professional aspirations.

# **Department of Curriculum and Instruction**

# **Department of Curriculum and Instruction**

- Curriculum and Instruction Website
- Department of Curriculum and Instruction Information
- Exceptional Learning Overview

#### Jeremy Wendt, Chairperson

Departmental Graduate Faculty: Ashley Akenson, James Akenson, Holly Anthony, Jane Baker, Julie Baker, Jason Beach, Amy Callendar, George Chitiyo, Danielle Collins, Melissa Comer, Cindy Conley, Perihan Fidan, Yvette Freter, Rebecca Garrett, Chester Goad, Cory Gleasman, Ka Rene Grimes, Kimberly Hale, Martha Howard, Janet Isbell, Patricia Jones, Krystal Kennedy, Nancy Kolodziej, Elizabeth Lackey, Michael Littrell, Delia Ann Manginelli, Rebekah Marcum, Jennifer Meadows, Kelly Moore, Queen Ogbomo, Miguel Perez Montoro, Darek Potter, Amanda Roberts, Amy Leigh Rogers, Kyle Shanks, Michael Shuran, Dorota Silber-Furman, Matthew Smith, Sandi Smith-Andrews, Amber Spears, Julie Stepp, Leslie Suters, Frances Taylor, Paula Taylor-Greathouse, Kristen Trent, Sara Wehrmann, Jeremy Wendt, Stephanie Wendt, Lisa Zagumny

# **Doctor of Philosophy**

# **Exceptional Learning Overview**

#### Ashley B. Akenson, Ph.D., Director

The Exceptional Learning Ph.D. (ELPhD) program focuses on the characteristics, strengths, and educational needs of individuals and groups whose learning potential and opportunities for success are frequently unrealized. Exceptional populations include people for whom social, economic, and physical characteristics may serve as a barrier to development and learning.

The ELPhD program offers robust academic preparation of professionals who serve their communities, public school systems, institutions of higher education, and nontraditional educational environments. Our

graduates are leaders who work across local, regional, national, and international platforms to effect positive change in diverse populations of exceptional learners and educational contexts, addressing barriers to learning, primarily through research and service activities.

The ELPhD curriculum is organized around three areas of knowledge development-core, concentration, and research. Core knowledge includes an orientation to the program, theory, foundations for understanding exceptional populations, program planning and evaluation, and technology. Concentration knowledge helps students to deepen and hone their specific interests. The innovative research sequence grounds students in quantitative and qualitative research methodologies.

Five concentrations and two tracks allowing students to focus on specific areas of professional and research interests:

**Applied Behavior Analysis** prepares professionals who can develop and deliver behavioral interventions and supports for individuals within educational and habilitative settings. There are two ABA tracks:

**Young Children and Families** prepares professionals to provide support and interventions to young, at-risk children and families with emphasis on building relationships and advocating for children and families. (Track Leader – Dr. Jane Baker)

**School-Aged Children and Adult Populations** prepares professionals who will implement and provide empirical support for behavioral interventions for a range of populations and pursue board certification as a behavior analyst. The ABAS course sequence is approved by the national Behavior Analyst Certification Board (BACB).(Track leader – Dr. Krystal Kennedy)

**Health Behaviors and Wellness Education (HBWE)** offers cutting-edge, hands-on experiential courses along with related pedagogical methods and theory. HBWE research courses supply additional opportunities to research and address discipline-specific concerns. This comprehensive and novel design supplies students with the knowledge, skills, and abilities necessary to succeed professionally and lead change in health sciences and wellness disciplines. (Concentratoin Leader – Dr. Christy Killman)

**Literacy** empowers educational innovators to develop cutting-edge, socially conscious approaches to multiliteracies and challenge narrow conceptions of learners, families, and worldviews. (Concentration Leader – Dr. Janet Isbell)

**Program Planning and Evaluation (PPE)** prepares professionals for leadership roles in the field of PPE. Program content includes the history of the field, influence in context and cultures in PPE design and methodology, quantitative and qualitative methods, and practical application of PPE skills through practicum experiences. (Concentration Leader – Dr. George Chitiyo)

**STEM Education** builds the capacity of innovative educational leaders to advance new ideas and to design/implement strategic innovations in science, technology, engineering and mathematics (STEM) education. (Concentration Leader – Dr. Holly Anthony)

#### **Admission Requirements**

A multifaceted approach is taken in the application and admissions decisions process. The applicant will be evaluated on the criteria listed below in order to determine the applicant's overall potential for success in the ELPhD program. Please note, however, that fulfillment of the minimum requirements *does not* guarantee admission.

1. **QPA**–Consideration for admission to the program is based on the applicant's grade point average (GPA) in the last graduate degree or the last 60 hours of undergraduate work if no graduate degree has been completed. If a student has successfully completed some graduate hours but not attained a graduate degree, the GPA for these courses may also be considered. An average of 3.0 (on a 4.0 scale) or above from a recognized baccalaureate, graduate, or professional degree from an

accredited college or university, or an international equivalent based on a four-year curriculum is required for admission.

- 2. **GRE** valid GRE scores (score date within 5 years of application) must be submitted as part of the ELPhD application.
- 3. **Scholarly Writing**–Students must demonstrate scholarly writing skill and mastery by submitting a reference-based paper, thesis, or other written document. The writing sample should use multiple, credible sources to support a particular point of view, argument, or claim and show the applicant's writing quality, skillful analysis/argument, and proficiency with synthesizing information. The applicant must be the sole author. The scholarly writing sample does not have a specific topic requirement.
- 4. Statement of Intent–One (1) to two (2) pages that address the following: intended enrollment (semester and year), intended concentration, autobiographical statement, educational and professional goals, and area of interest for future research. Applicants to the ABA concentration must indicate the track in which they wish to enroll: School-Aged & Adult Populations (ABAS) or Young Children & Families (YCF).
- 5. Three Letters of Recommendation–Recommendation letters should be from individuals, preferably professors, who are able to comment on the student's qualifications and scholarly aptitude for doctoral study. The letter should also address characteristics that will contribute to the student's success as a doctoral student should you be accepted in the ELPhD program. Consideration will be made based upon the content of these letters. Please make certain the recommenders know they must submit a letter as well as evaluate the applicant on a series of qualities (done when submitting the letter). Applications without three letters may not receive full consideration.
- 6. Professional Curriculum Vitae (CV)/Resume
- 7. **Interviews -** Applicants who pass the initial evaluation will be required to have an interview with the ELPhD program faculty and director of graduate programs.
- 8. **International Students** must also meet the English Language Requirement by providing TOEFL test scores: a minimum of 80 on the TOEFL iBT is required. If you have taken another TOEFL version and the results are still valid (no more than 5 years old), the score requirements are: 213 on TOEFL CBT or 550 on TOEFL PBT.

Applicants who have citizenship in a country where English is a primary language or have been awarded a degree from a university in one of the following countries **are exempt from the English Language requirement:** Australia, Belize, the British Caribbean and British West Indies, Canada (except Quebec), England, Guyana, Ireland, Liberia, New Zealand, Scotland, the United States, and Wales.

# If a candidate does not have access to a TOEFL testing site, it may be possible to accept another language proficiency test score. Candidates should inquire before submitting a test score other than the TOEFL.

\*Please note the STEM Education concentration requires the following additional admission requirements:

- 1. Three years of STEM teaching/outreach (P-16)
- 2. Master's Degree and
- 3. One of the following:
  - o A minimum of 18 semester hours of graduate credit in a STEM discipline;
  - $\circ$  Teacher Licensure in a STEM discipline (Grades 6-8, 6–12, or 7-12);
  - $\circ$   $\;$  Teacher Licensure (K-5) with 24 semester hours in math/science; or
  - Teacher Licensure (K-5) with a passing score on the state-approved licensure exam for a STEM content area.

#### Program Requirements

The student must maintain a cumulative point average of 3.25 and, in addition to adhering to the general regulations of the College of Graduate Studies, adhere to the specific regulations for the Ph.D. in Exceptional Learning program. These regulations, standards, and expectations include:

1. A minimum of 78–79 semester hours of successfully completed course work: 13 hours core courses, 21 hours research courses, 23–24 hours concentration courses, 6 hours elective courses, and a minimum of 15 dissertation hours. All hours should be taken at the 6000– and 7000–levels (transfer credit may include other level courses with approval). **Note**: if an equivalent specialty course is not available at the 6000– or 7000– level, a 5000–level course that is germane to the student's research/areas of research interest may be used to meet the minimum requirements of course work **only** by permission of the instructor of the course in question, student's advisor or graduate advisory committee, and the Director of Graduate Programs. Written approval must be secured before enrolling; this may be through inclusion on the approved Program of Study or separate documentation, such as a Substitution form.

a. A minimum of 51 semester hours of course work beyond the baccalaureate must be completed after admittance into the doctoral program, including a minimum of 12 semester hours at the 7000-level (excluding dissertation credit).

b. Upon approval from the student's advisory committee and the Director of Graduate Programs, up to nine (9) graduate credit hours with a grade of *B* or better can be counted toward the first 33 hours of the ELPhD Program of Study; these may be credits that are independent of <u>or</u> included in a previously earned degree. Requests to transfer more than a total of 18 credit hours must be approved by the Director of Graduate Programs prior to submitting the Program of Study or transfer request. No more than 27 semester hours of credit at the Master's and Educational Specialist levels, excluding theses and problems courses, may be accepted for transfer credit toward the doctorate. All transfer credit must align with Tennessee Tech and SACSCOC guidelines.

2. All requirements, including the dissertation, must be completed within a period of no more than eight (8) consecutive years.

3. As and Bs are required in coursework. A grade of C is considered a failing grade in doctoral programs. The student is allowed to maintain a grade of C in only one (1) course completed toward the Ph.D. degree. A student receiving two (2) Cs will be dismissed from the program. If a second C is received, it may not be substituted or moved out of the student's program of study in order to avoid dismissal.

4. Ds and Fs are not acceptable in the Ph.D. in Exceptional Learning program. If a student receives a grade of D or F in a course, she/he will be dismissed from the program.

5. If an *Incomplete* is granted, the student has one (1) academic year to complete the requirements. If the requirements have not been met in the allotted time period, the grade is converted to an *IF* and the student will be dismissed from the program.

6. A maximum of twelve (12) credit hours may be taken in one (1) semester. Written approval from the student's advisor/chair, department chair, and director of graduate programs is required to register and take more than 12 credit hours in one semester.

7. Course repetition is not allowed in the ELPhD program.

8. Course substitutions are allowed upon written approval from the advisor/graduate advisory committee, department chair, and director of graduate programs.

9. Students should complete their Comprehensive Examinations either a) following completion of all course work, excluding EDU 7920 and EDU 7990, or b) during the last semester during which such course work is to be completed. Comprehensive Examinations should occur no later than the end of the semester in which the student completes EDU 7920.

10. Approval of the dissertation topic, a successful dissertation proposal presentation to the entire graduate advisory committee, and IRB approval (where appropriate) must precede any significant work on the dissertation. IRB approval must be obtained for any human subjects research project initiated by a student (or faculty member); this includes studies using secondary data.

11. Satisfactory completion of the dissertation requires an oral defense.

12. Dissertation hours (15 hours minimum) may not be completed in fewer than 2 semesters.

# En-route M.A. or Ed.S Degree in Curriculum and Instruction (C&I)

A student pursuing an Exceptional Learning Ph.D. may elect to earn an en-route degree as they progress through the ELPhD program. Those students entering the program with no prior graduate degree may earn an M.A. in Curriculum & Instruction (C&I) with a Curriculum concentration, as the student successfully advances toward completion of the Ph.D. Those who enter the program with a graduate degree may elect to earn either the M.A. or an Ed.S. in Curriculum & Instruction with a Curriculum concentration.

If a student elects to forego the en-route degree, the full 79 credit hours of the program must be completed. The Ph.D. is not reduced to 46–49 hours, even if a student enters with one or more graduate degrees.

En-route M.A. in Curriculum & Instruction (with Curriculum concentration)

The en-route M.A. degree may be awarded when the student successfully completes 33 semester credit hours <u>and must include</u> successful completion of nine (9) credit hours of either quantitative (EDU 7420, EDU 7430, and EDU 7300) or qualitative (EDU 7010, EDU 7330, and EDU 7340) research. The M.A. will <u>not</u> be awarded without completion of these 9 research credit hours.

Enroute-MA in Curriculum and Instruction	
Course Requirements	Credit Hours
Research Requirement:	
Quantitative Track: EDU7420, EDU 7430 and EDU 7300 OR Qualitative Track: EDU 7010, EDU 7330 and EDU 7340	9 hours
Advisor Guided Electives	24 hours
TOTAL Hours for Enroute MA	33 hours

Students who have already earned a graduate degree before entering the ELPhD program or who have taken graduate courses that are relevant to the program (and for which the grade is a *B* or better) may be eligible to transfer in up to 9 credits <u>for the M.A. portion of the ELPhD program of study</u>. Any courses taken or transferred in at the 5000-level must be applied to the en-route M.A. portion of the program, unless special exception has been secured. Courses applied to the en-route M.A. <u>must be completed within six years of enrollment</u>.

The en-route M.A. degree may be awarded at any point during the program, given that the student:

- meets both the C&I M.A. and Ph.D. research course requirements as listed above;
- has submitted an approved Program of Study with signatures from the student's advisory committee, the Chair of C&I, and the Director of Graduate Programs;

• has satisfied all College of Graduate Studies General Degree Requirements policies; and

• has applied for graduation in accordance with the requirements of the College of Graduate Studies. Students <u>must apply for graduation</u> as required in order to earn their en-route degree—it is not automatically awarded.

Once the en-route M.A. in Curriculum & Instruction has been awarded, the remaining portion of the Program of Study must include a minimum of 45–46 semester credits of appropriate graduate-level coursework consisting of research, concentration, core, and elective credits at the 6000– and 7000–level, as approved by the student's advisory committee and the Director of Graduate Programs. A minimum of 15 semester credit hours of doctoral research and dissertation is required in no fewer than two (2) semesters.

#### En-route Ed.S. in Curriculum & Instruction (with Curriculum concentration)

The en-route Ed.S. degree may be awarded when the student successfully completes 30 semester credit hours <u>and must include</u> successful completion of nine (9) credit hours of either quantitative (EDU 7420, EDU 7430, and EDU 7300) or qualitative (EDU 7010, EDU 7330, and EDU 7340) research. The Ed.S. will not be awarded without completion of these 9 research credit hours.

Enroute-Ed.S. in Curriculum and Instruction	
Course Requirements	Credit Hours
<b>Research Requirement:</b> Quantitative Track: EDU7420, EDU 7430 and EDU 7300 OR Qualitative Track: EDU 7010, EDU 7330 and EDU 7340	9 hours
Advisor Guided Electives	21 hours
TOTAL Hours for Enroute	30 hours

Students who have already earned a graduate degree before entering the ELPhD program or who have taken graduate courses that are relevant to the program (and for which the grade is a *B* or better) may be eligible to transfer in up to 9 credits <u>for the en-route Ed.S. portion of the ELPhD program of study</u>. Any courses taken or transferred in at the 5000-level must be applied to the en-route Ed.S. portion of the program, unless special exception has been secured. Courses applied to the en-route Ed.S. <u>must be completed within six years of enrollment</u>.

The en-route Ed.S. degree may be awarded at any point during the program, given that the student:

- meets both the C&I Ed.S. and Ph.D. research course requirements as listed above;
- has submitted an approved Program of Study with signatures from the student's advisory committee, the Chair of C&I, and the Director of Graduate Programs;
- has satisfied all College of Graduate Studies General Degree Requirements policies; and

has applied for graduation in accordance with the requirements of the College of Graduate Studies.

Students <u>must apply for graduation</u> as required in order to earn their en-route degree—it is not automatically awarded.

Once the en-route Ed.S. in Curriculum & Instruction has been awarded, the remaining portion of the Program of Study must include a minimum of 48–49 semester credits of appropriate graduate-level coursework consisting of research, concentration, core, and elective credits at the 6000– and 7000–level, as approved by the student's advisory committee and the Director of Graduate Programs. A minimum of 15 semester credit hours of doctoral research and dissertation is required in no fewer than two (2) semesters.

Note: Only students admitted to the ELPhD program are permitted to enroll in these courses.

#### <u>Curriculum</u>

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

Ph.D. Exceptional Learning Degree Requirements		
Requirement	Credit Hours	
Core Coursework	13	
Core Concentration Coursework	23-24	
Advisor Guided Electives	6-7	
Research Coursework	21	
Dissertation	15+	
Total Degree Requirements	78-79	

# Core Courses (Select 13 Credit Hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

# Research Component (Select 21 Credit Hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \* Choose one additional research course from the following:
- EDU 7320 Research Methods in Behavior Analysis Cr. 3. OR
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \* \*EDUP 7410 counts as research for non-PPE concentration students
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.

• EDU 7950 - Doctoral Seminar: Special Topics in Education Cr. 1-6. \* \* (only if a research-based topic)

# Dissertation (15 Credit Hours)

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9. \* The 15 hours are generally taken in 9 & 6 hour blocks.

## **Concentration Course Requirements**

### Applied Behavior Analysis Concentration

#### ABA Specialization:

School-Aged Children and Adult Populations (Select 23/24 Credit Hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDUB 7000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 7010 Topics in Behavior Analysis Cr. 3.
- EDUB 7020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 7030 Assessment in Behavior Analysis Cr. 3.
- EDUB 7050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 7060 Ethics in ABA Cr. 3.

Young Children and Families (Select 23/24 Credit Hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- ABAP 7920 Topics, Issues & Research in Early Childhood Special Education Cr. 2.
- ECED 7220 Early Childhood Instruction and Materials Cr. 3.
- EDUC 7400 Programs and Service Delivery Models Cr. 3.
- EDUC 7450 Doctoral Seminar: Young Children and Families Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

## Health Behaviors and Wellness Education Concentration

The Health Behavior and Wellness Education (HBWE) concentration offers cutting-edge, hands-on experiential courses along with related pedagogical methods and theory. HBWE research courses supply additional opportunities to research and address discipline-specific concerns. This comprehensive and novel design supplies students with the knowledge, skills, and abilities necessary to succeed professionally and lead change in health sciences and wellness disciplines.

- EDUH 7000 Current Issues in Exercise Science, Health Behavior, and Wellness Education Cr. 3.
- EDUH 7010 Pedagogical Theory of Physical Education Cr. 3.
- EDUH 7020 Advanced Teaching in Exercise Science and Health Related Fields Cr. 3.

- EDUH 7100 Biomechanics of Human Movement Cr. 3.
- EDUH 7200 Foundations of Health Promotion Cr. 3.
- EDUH 7300 Behavioral Aspects of Physical Activity Cr. 3.
- EDUH 7500 Health Behavior and Wellness Education Research Cr. 3.
- EDUH 7600 Special Topics in Exercise Science Cr. 1-3.
- EDUH 7610 Independent Study in Exercise Science/ Health Behavior and Wellness Education Cr. 1-3.

### Literacy Concentration (Select 23/24 Credit Hours)

The Literacy concentration engages students in a continuum of exploration to develop well-rounded knowledge of literacy research, theory, and practice, as well as expand expertise in the student's choice of topic.

- EDUL 7100 Literacy History, Theory, and Policy Cr. 3.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUL 7600 The Literacy Professional Cr. 3.
- EDUL 7700 Theory, Methodology, & Trends in Literacy Research Cr. 3.
- EDUL 7900 Community Literacy Cr. 3.

# Program Planning and Evaluation Concentration (Select 23/24 Credit Hours)

This concentration prepares professionals for leadership roles in program planning and evaluation in various settings. In addition to exposing students to different theories of evaluation, the program equips students with both qualitative and quantitative research/evaluation methods.

- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- EDUP 7420 Advanced Program Planning and Evaluation Methods II Cr. 3.
- EDUP 7810 Supervised Practicum in Program Planning and Evaluation Cr. 3-9. 18 credit hours of EDUP 7810 is required, and may be taken in blocks of 3, 6, and/or 9 credit hours.

## STEM Education Concentration (Select 23/24 Credit Hours)

The STEM education concentration provides students with the background and experience needed to assume leadership roles in the development, delivery, and assessment of STEM education programs.

- EDUS 7500 STEM Education Foundations Cr. 3.
- EDUS 7510 STEM Curriculum & Assessment Cr. 3.
- EDUS 7540 STEM Education Pedagogy Cr. 3.
- EDUS 7550 STEM Education Trends and Issues Cr. 3.
- EDUS 7530 STEM Education Research Cr. 3.
- EDUS 7560 STEM Learners and Learning Cr. 3.
- EDUS 7580 STEM Education Field Study Cr. 2.
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.

- EDUS 7515 STEM Education Seminar Cr. 1.
- EDUS 7520 STEM Technology Seminar Cr. 1.

## Advisor Guided Electives

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

## Approved Substitutions for CUED 7430 or EDU 7440

The following are approved substitutions for CUED 7430 or EDU 7440. Course selections below from the Literacy concentration may only be counted as a substitution core course for those student whom are NOT in the Literacy concentration.

- CUED 7010 Learning Theories Cr. 3.
- CUED 7510 Instructional Design Foundations Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exceptional Learning, Applied Behavior Analysis Concentration, Ph.D.

Exceptional Learning Program Information

#### **Degree Requirements**

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

## Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

## Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

# Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### **Core Concentration Coursework**

## School-Aged Children and Adult Populations (Select 23/24 hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDUB 7000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 7010 Topics in Behavior Analysis Cr. 3.
- EDUB 7020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 7030 Assessment in Behavior Analysis Cr. 3.
- EDUB 7050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 7060 Ethics in ABA Cr. 3.

## Young Children and Families (Select 23/24 hours)

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- ABAP 7920 Topics, Issues & Research in Early Childhood Special Education Cr. 2.
- ECED 7220 Early Childhood Instruction and Materials Cr. 3.
- EDUC 7400 Programs and Service Delivery Models Cr. 3.
- EDUC 7450 Doctoral Seminar: Young Children and Families Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

#### **Advisor Guided Electives**

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.

- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exceptional Learning, Health Behaviors and Wellness Education Concentration, Ph.D.

Exceptional Learning Program Information

#### Degree Requirements

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- **Research Coursework:** 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

## Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

## Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.

- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

# Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### Core Concentration Coursework

The Health Behavior and Wellness Education (HBWE) concentration offers cutting-edge, hands-on experiential courses along with related pedagogical methods and theory. HBWE research courses supply additional opportunities to research and address discipline-specific concerns. This comprehensive and novel design supplies students with the knowledge, skills, and abilities necessary to succeed professionally and lead change in health sciences and wellness disciplines. HBWE students will select 24 credit hours from the following courses:

- EDUH 7000 Current Issues in Exercise Science, Health Behavior, and Wellness Education Cr. 3.
- EDUH 7010 Pedagogical Theory of Physical Education Cr. 3.
- EDUH 7020 Advanced Teaching in Exercise Science and Health Related Fields Cr. 3.
- EDUH 7100 Biomechanics of Human Movement Cr. 3.
- EDUH 7200 Foundations of Health Promotion Cr. 3.
- EDUH 7300 Behavioral Aspects of Physical Activity Cr. 3.
- EDUH 7500 Health Behavior and Wellness Education Research Cr. 3.
- EDUH 7520 Inquiry in Health Behavior and Wellness Education Cr. 1-4.
- EDUH 7600 Special Topics in Exercise Science Cr. 1-3.
- EDUH 7610 Independent Study in Exercise Science/ Health Behavior and Wellness Education Cr. 1-3.

#### **Advisor Guided Electives**

• CUED 6010 - Curriculum Development and Evaluation Cr. 3.

- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# **Exceptional Learning, Literacy Concentration, Ph.D.**

Exceptional Learning Program Information

#### **Degree Requirements**

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

## Core Coursework (Select 13 hours)

- EDU 7000 Trans-Concentration Seminar Cr. 1.\*
- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3.

OR

• EDU 7440 - Technology Applications for Institutional Dissemination of Information Cr. 3.

# Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

# Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### **Core Concentration Coursework**

The Literacy concentration engages students in a continuum of exploration to develop well-rounded knowledge of literacy research, theory, and practice, as well as expand expertise in the student's choice of topic.

- EDUL 7100 Literacy History, Theory, and Policy Cr. 3.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUL 7600 The Literacy Professional Cr. 3.
- EDUL 7700 Theory, Methodology, & Trends in Literacy Research Cr. 3.
- EDUL 7900 Community Literacy Cr. 3.

#### Advisor Guided Electives

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exceptional Learning, Program Planning and Evaluation Concentration, Ph.D.

Exceptional Learning Program Information

#### **Degree Requirements**

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

## Core Coursework (Select 13 hours)

• EDU 7000 - Trans-Concentration Seminar Cr. 1.\*

- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

# Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

## Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### Core Concentration Coursework

This concentration prepares professionals for leadership roles in program planning and evaluation in various settings. In addition to exposing students to different theories of evaluation, the program equips students with both qualitative and quantitative research/evaluation methods.

- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- EDUP 7420 Advanced Program Planning and Evaluation Methods II Cr. 3.
- EDUP 7810 Supervised Practicum in Program Planning and Evaluation Cr. 3-9. 18 credit hours of EDUP 7810 is required, and may be taken in blocks of 3, 6, and/or 9 credit hours.

#### Advisor Guided Electives

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- CUED 7010 Learning Theories Cr. 3.
- CUED 7030 Rural Schools and Communities Cr. 3.
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7060 Issues in Education Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6.
- EDUL 7200 Equity Literacy Cr. 3.
- EDUL 7300 Multiliteracies Cr. 3.
- EDUL 7400 Literacies of Culturally & Linguistically Diverse Populations Cr. 3.
- EDUL 7500 Linguistic Perceptions Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3.
- ENGL 4561 (5561) American English Cr. 3.
- ENGL 6010 Teaching Composition Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6120 Early Childhood Special Education Assessment Cr. 3.
- SPED 7110 Family Collaboration in Special Education Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exceptional Learning, STEM Education Concentration, Ph.D.

Exceptional Learning Program Information

#### **Degree Requirements**

The Exceptional Learning Ph.D. requires 78-79 credit hours and is organized into three core areas: Core Knowledge, Research Knowledge, and Concentration Knowledge. Credit hours are classified as follows:

- Core Coursework: 13 hours
- Research Coursework: 21 hours
- Dissertation: 15+ hours
- Core Concentration Coursework: 23-24 hours
- Advisor Guided Electives: 6-7 hours
- Total Degree Requirements: 78-79 hours

## Core Coursework (Select 13 hours)

• EDU 7000 - Trans-Concentration Seminar Cr. 1.\*

- EDU 7010 Theoretical Foundations of Research Cr. 3.
- EDU 7020 At-Risk Populations: Research, Service, and Delivery Cr. 3.
- EDU 7040 Program Planning and Proposal Development Cr. 3. AND
- CUED 7430 Specialized Applications of Technology to Education Cr. 3. OR
- EDU 7440 Technology Applications for Institutional Dissemination of Information Cr. 3.

# Research Coursework (Select 21 hours)

- EDU 7300 Research Design Cr. 3.
- EDU 7330 Qualitative Inquiry in Research Cr. 3.
- EDU 7340 Data Analysis and Representation in Qualitative Inquiry Cr. 3.
- EDU 7420 Quantitative Inquiry in Education I Cr. 3.
- EDU 7430 Quantitative Inquiry in Education II Cr. 3.
- EDU 7920 Research Seminar in Education Cr. 3. \*

#### Choose one additional research course from the following:

- EDU 7320 Research Methods in Behavior Analysis Cr. 3.
- EDU 7350 Advanced Regression Analysis Cr. 3.
- EDUP 7410 Advanced Program Planning and Evaluation Methods I Cr. 3. \*\*
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- EDU 7950 Doctoral Seminar: Special Topics in Education Cr. 1-6. \*

#### Note:

\* only if a research-based topic

\*\* EDUP 7410 counts as research for non-PPE concentration students

## Dissertation (15 hours)

The 15 hours are generally taken in 9 & 6 hour blocks.

• EDU 7990 - Research and Dissertation Cr. 1, 3, 6, 9.

#### **STEM Education Concentration**

The STEM education concentration provides students with the background and experience needed to assume leadership roles in the development, delivery, and assessment of STEM education programs.

- EDUS 7500 STEM Education Foundations Cr. 3.
- EDUS 7510 STEM Curriculum & Assessment Cr. 3.
- EDUS 7540 STEM Education Pedagogy Cr. 3.
- EDUS 7550 STEM Education Trends and Issues Cr. 3.
- EDUS 7530 STEM Education Research Cr. 3.
- EDUS 7560 STEM Learners and Learning Cr. 3.

- EDUS 7580 STEM Education Field Study Cr. 2.
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.
- EDUS 7515 STEM Education Seminar Cr. 1.
- EDUS 7520 STEM Technology Seminar Cr. 1.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# **Master of Arts**

# Curriculum and Instruction, Applied Behavior Analysis Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 24 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 3 hours
- Total Degree Requirements: 33 hours

#### **Core Concentration Coursework**

- EDUB 6000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 6030 Assessment in Behavior Analysis Cr. 3.
- EDUB 6020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 6320 Research Methods in Behavior Analysis Cr. 3.
- EDUB 6010 Topics in Behavior Analysis Cr. 3.
- EDUB 6050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 6060 Ethics in ABA Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Curriculum Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 9 hours
- Advisor Guided Electives: 18 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music

- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Early Childhood Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 15 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 12 hours
- Total Degree Requirements: 33 hours

#### **Core Concentration Coursework**

- ECED 7210 Early Childhood Curriculum Cr. 3.
- ECED 7220 Early Childhood Instruction and Materials Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- SPED 6010 Survey of Disability Characteristics, Procedures, and Methods in Special Education Cr. 3.
- SPED 7200 Teaching Individuals With Autism Spectrum Disorder Credit 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies

- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Elementary Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 9 hours
- Total Degree Requirements: 33 hours

#### Core Concentration Coursework

- CUED 6150 Middle School Curriculum Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- ELED 6400 Advanced Studies in Elementary Science Education Cr. 3.
- ELED 6500 Diagnostic and Remediation Techniques in Elementary Mathematics Cr. 3.
- ELED 6600 Organizing Themes for Social Studies Cr. 3.
- ELED 7400 The Literacy Language Arts Program Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

#### Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Family and Consumer Sciences Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 9 hours
- Total Degree Requirements: 33 hours

# **Core Concentration Coursework**

- FOED 6020 Perspectives in American Education Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- HEC 6630 Strategies and Advocacy for Families Cr. 3.
- HEC 6811 Learning and Instructional Strategies in Family Consumer Sciences Education Cr. 3.

# Research Coursework

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education

- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Library Science Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 27 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

# Core Concentration Coursework

- CSED 6000 Digital Literacy and Computing Cr. 3. OR
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- LSCI 4570 (5570) Young Adult Literature Cr. 3. OR
- LSCI 7570 Contemporary Young Adult Literature Cr. 3
- LSCI 6010 Classification and Cataloging of Media and Materials Cr. 3.
- LSCI 6600 Literature Across the Curriculum Cr. 3. OR
- LSCI 6550 Contemporary Children's Literature Cr. 3.
- LSCI 7000 Information Literacy Tools and Services Cr. 3.
- LSCI 7030 Administration of the School Library Cr. 3.
- LSCI 7040 Technology Engagement and Support for Libraries Cr. 3.
- LSCI 6800 Library Practicum Cr. 3.

#### **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# **Curriculum and Instruction, Literacy Concentration, M.A.**

Curriculum and Instruction, M.A. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 27 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

### Core Concentration Coursework

- READ 6100 Uses of Technology in Literacy Education Cr. 3.
- READ 6340 Literacy in the Elementary School Cr. 3.
- READ 6350 Literacy in the Secondary School Cr. 3.
- READ 6700 Diversity and Equity in Literacy Cr. 3.
- READ 6310 Assessment and Intervention in Literacy Cr. 3.
- ELED 7400 The Literacy Language Arts Program Cr. 3.
- READ 7370 Linguistics: Theory and Application for Educators Cr. 3.
- READ 7500 Leadership in Literacy Education Cr. 3.
- READ 6800 Practicum Experiences in Literacy Cr. 3.

# **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Music Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 9 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 18 hours
- Total Degree Requirements: 33 hours

# **Core Concentration Coursework**

- FOED 6020 Perspectives in American Education Cr. 3.
- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

# Research Coursework

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.

- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Secondary Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 12 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 15 hours
- Total Degree Requirements: 33 hours

# Core Concentration Coursework

- CUED 6150 Middle School Curriculum Cr. 3.
- FOED 6020 Perspectives in American Education Cr. 3. OR
- FOED 7020 Philosophy and Public Policy Cr. 3.
- FOED 6320 Educational Applications of Technology Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

# **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education

- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Special Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 12 hours
- Research Coursework: 6 hours
- Advisor Guided Electives: 15 hours
- Total Degree Requirements: 33 hours

# Core Concentration Coursework

- SPED 6010 Survey of Disability Characteristics, Procedures, and Methods in Special Education Cr. 3.
- SPED 6040 Classroom Applications using Applied Behavior Analysis Cr. 3.
- SPED 6070 Individualized Educational Planning Credit 3.
- FOED 6820 Applied Educational Assessment Cr. 3.

# **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.

- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, STEM Education Concentration, M.A.

Curriculum and Instruction, M.A. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 15 hours
- Advisor Guided Electives: 12 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

# Core Concentration Coursework

- CUED 6010 Curriculum Development and Evaluation Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- EDUS 7500 STEM Education Foundations Cr. 3. OR
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.
- CUED 6440 Emerging Technologies in Education Cr. 3. OR
- CUED 6450 Immersive Technologies for Teaching and Learning Cr. 3.
- ELED 6400 Advanced Studies in Elementary Science Education Cr. 3. OR
- ELED 6500 Diagnostic and Remediation Techniques in Elementary Mathematics Cr. 3. OR
- SEED 4122 (5122) Materials and Methods of Teaching Mathematics Cr. 3. OR
- SEED 4123 (5123) Materials and Methods of Teaching the Sciences Cr. 3.

# **Research Coursework**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 5000, 6000, or 7000 level courses from the following subject list. (Note that there is a limit of 9 credit hours at the 5000 level.)

- AGED Agriculture Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education

- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Instructional Leadership, M.A.

https://www.tntech.edu/education/ci/graduate.php

Instructional Leadership, M.A. Program Information

# **Degree Requirements**

The Master of Arts in Instructional Leadership is a 33 hour degree program. This program prepares educational professionals for administrative career advancement.

- Core Coursework: 27 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 33 hours

# Core Coursework

- INSL 6510 School Leadership, Law, Ethics, and Diversity Cr. 6.
- INSL 6560 Technology for Administrators Cr. 3.
- INSL 6520 School-Based Management and Community Relations Cr. 6.
- INSL 6530 Data Driven Curriculum: Development, Assessment and Evaluation Cr. 6.
- INSL 7010 Instructional Leadership Cr. 3.
- INSL 7400 School Leadership and Supervision Cr. 3.

# Research Coursework

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Learning Design and Technology, (MA)

The MA in Learning Design and Technology is an innovative program designed to prepare professionals in face-to-face and virtual positions in instructional design, virtual learning, and computer science education. Areas of the curriculum have flexibility that extends to the candidate's professional expertise. Emphasis is placed on leveraging technologies to enhance learning outcomes, including the use of multimedia, simulations, XR, and online platforms.

# Total Degree Requirements (33 Hours)

Core Concentration Coursework*	27 hours
Research Coursework	6 hours
Total Degree Requirements	33 hours

# Core Concentration Coursework (27 Hours)

Note: Core Concentration Courses listed below and denoted with \* meet the Computer Science Education Optional Embedded Certificate requirements. Core Concentration Courses denoted with \*\* meet the Instructional Design & Virtual Teaching Embedded Certificate Requirements.

- CSED 6000 Digital Literacy and Computing Cr. 3. \*
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3. \*

- CSED 6020 Computer Science Concepts and Design Cr. 3. \* OR
- CUED 7520 Teaching and Learning Online Cr. 3.
- CSED 6030 Computer Science Instructional Methods Cr. 3. \* OR
- CUED 6440 Emerging Technologies in Education Cr. 3.
- FOED 6820 Applied Educational Assessment Cr. 3.
- CUED 6430 Design Studio: Production of Instructional Materials Cr. 3. \*\*
- CUED 6450 Immersive Technologies for Teaching and Learning Cr. 3. \*\*
- CUED 7510 Instructional Design Foundations Cr. 3. \*\*
- CUED 7540 Applied Instructional Design and Learning Analytics Credit 3. \*\*

# **Research Coursework (6 Hours)**

- CUED 6300 Quantitative Educational Research Credit 3. OR
- CUED 6310 Qualitative Research in Education Credit 3.
- CUED 6305 Quantitative Problems in Curriculum Credit 3. OR
- CUED 6315 Qualitative Problems in Curriculum Credit 3.

# **Specialist in Education**

# Curriculum and Instruction, Applied Behavior Analysis Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework\*: 24 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 30 hours

\*If the student has completed CUED 6010 at the MA level, they will take a 3 credit hour Advisor Approved Elective as part of their 24 hour core requirement.

# **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \*If taken at the MA level, student will select another Advisor Guided Elective.
- EDUB 6000 Conceptual Topics and Principles in Behavior Analysis Credit 3.
- EDUB 7010 Topics in Behavior Analysis Cr. 3.

- EDUB 7020 Behavior Change Procedures and Systems Supports in ABA Credit 3.
- EDUB 7030 Assessment in Behavior Analysis Cr. 3.
- EDUB 7050 ABA Approaches in Developmental Disabilities Cr. 3.
- EDUB 7060 Ethics in ABA Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

# **Research Coursework**

- CUED 7910 Advanced Research Project in Education Cr. 3.
- EDU 7320 Research Methods in Behavior Analysis Cr. 3.

# Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Curriculum Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 3-6 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 18-21 hours
- Total Degree Requirements: 30 hours

# **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If CUED 6010 is taken at the MA level, student will select another Advisor Guided Elective.
- FOED 7020 Philosophy and Public Policy Cr. 3.

# Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science

- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Early Childhood Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 12-15 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 9-12 hours
- Total Degree Requirements: 30 hours

# **Core Concentration Coursework**

- ABAP 7120 Positive Behavior Support & Families Cr. 3.
- SPED 6050 Introduction to Applied Behavior Analysis Cr. 3.
- READ 7020 Family Literacy Cr. 3.
- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective
- FOED 7020 Philosophy and Public Policy Cr. 3.

# Practicum and Research Coursework

- ECED 7800 Laboratory and Field Experiences in Education Cr. 3-4.
- ECED 7910 Independent Study in Education Cr. 3.

# Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Educational Technology Concentration, Ed.S.

# **Degree Requirements**

- Core Concentration Coursework: 12-15 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 9-12 hours
- Total Degree Requirements: 30 hours

# **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will have to select another Advisor Guided Elective.
- CUED 6440 Emerging Technologies in Education Cr. 3.
- CUED 6460 Constructivist Strategies for Classroom Instruction Cr. 3.
- CUED 7430 Specialized Applications of Technology to Education Cr. 3.
- CUED 7530 Designing Integrated Technology Environments Cr. 3.

# Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education

- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Elementary Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# Degree Requirements

- Core Concentration Coursework: 6-9 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 15-18 hours
- Total Degree Requirements: 30 hours

# **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective.
- CUED 7010 Learning Theories Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

# Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Exercise Science Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

#### **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Practicum and Research Coursework: 6 hours \*
- Advisor Guided Electives: 6 hours
- Total Degree Requirements: 30 hours

\* Student must take EXPW 6510 before CUED 7910 if no Research Methods or equivalent in Excercise Science on transcript (in place of one 3 hour elective course)

# **Core Concentration Coursework**

- CUED 7010 Learning Theories Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- EXPW 6600 Special Topics in Exercise Science Cr. 1-3. (3 credit hours required)
- EXPW 6440 Physiology of Exercise Cr. 3.
- EXPW 7000 Current Issues in Exercise Science, Health Behavior, and Wellness Education Cr. 3.
- EXPW 7010 Pedagogical Theory of Physical Education Cr. 3.

# Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education

- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Family and Consumer Sciences Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 18 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 6 hours
- Total Degree Requirements: 30 hours

#### **Core Concentration Coursework**

- CUED 7010 Learning Theories Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- HEC 6610 Families: Crisis Management and Intervention for Families Cr. 3.
- HEC 6630 Strategies and Advocacy for Families Cr. 3.
- HEC 6811 Learning and Instructional Strategies in Family Consumer Sciences Education Cr. 3.
- PSY 7200 Advanced Educational Psychology Cr. 3.

#### **Practicum and Research Coursework**

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

#### **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Library Science Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 24 hours
- Practicum and Research Courses: 6 hours

• Total Degree Requirements: 30 hours

# **Core Concentration Coursework**

- CSED 6000 Digital Literacy and Computing Cr. 3. OR
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- LSCI 6010 Classification and Cataloging of Media and Materials Cr. 3.
- LSCI 6550 Contemporary Children's Literature Cr. 3. OR
- LSCI 6600 Literature Across the Curriculum Cr. 3.
- LSCI 7000 Information Literacy Tools and Services Cr. 3.
- LSCI 7030 Administration of the School Library Cr. 3.
- LSCI 7040 Technology Engagement and Support for Libraries Cr. 3.
- LSCI 7570 Contemporary Young Adult Literature Cr. 3

# Practicum and Research Coursework

- LSCI 7800 Library Practicum Cr. 3
- CUED 7910 Advanced Research Project in Education Cr. 3.

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Literacy Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 27 hours
- Research Coursework: 3 hours
- Total Degree Requirements: 30 hours

# Core Concentration Coursework

- READ 6100 Uses of Technology in Literacy Education Cr. 3.
- READ 6340 Literacy in the Elementary School Cr. 3.
- READ 6350 Literacy in the Secondary School Cr. 3.

- READ 6700 Diversity and Equity in Literacy Cr. 3.
- READ 6310 Assessment and Intervention in Literacy Cr. 3.
- ELED 7400 The Literacy Language Arts Program Cr. 3.
- READ 7370 Linguistics: Theory and Application for Educators Cr. 3.
- READ 7500 Leadership in Literacy Education Cr. 3.
- READ 7800 Practicum Experiences in Literacy Cr. 3.

# Research Coursework

• CUED 7910 - Advanced Research Project in Education Cr. 3.

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Secondary Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# Degree Requirements

- Core Concentration Coursework: 6-9 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives: 15-18 hours
- Total Degree Requirements: 30 hours

# **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \* If taken at the MA level, student will select another Advisor Guided Elective.
- PSY 7200 Advanced Educational Psychology Cr. 3.
- FOED 7020 Philosophy and Public Policy Cr. 3.

# **Practicum and Research Coursework**

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, Special Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 9 hours
- Research Coursework: 6 hours

- Advisor Guided Electives: 15 hours
- Total Degree Requirements: 30 hours

# Core Concentration Coursework (9 hours)

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective.
- FOED 7020 Philosophy and Public Policy Cr. 3.
- SPED 6070 Individualized Educational Planning Credit 3.

# **Research Coursework (6 hours)**

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# Advisor Guided Electives

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language

- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Curriculum and Instruction, STEM Education Concentration, Ed.S.

Curriculum and Instruction, Ed.S. Program Information

# **Degree Requirements**

- Core Concentration Coursework: 6-9 hours
- Practicum and Research Coursework: 6 hours
- Advisor Guided Electives in STEM courses (EDUS 7500-EDUS 7580): 6 hours
- Advisor Guided Electives in STEM Education & Technology Courses: 9-12 hours
- Total Degree Requirements: 30 hours

# **Core Concentration Coursework**

- CUED 6010 Curriculum Development and Evaluation Cr. 3. \* \*If taken at the MA level, student will select another Advisor Guided Elective.
- EDUS 7500 STEM Education Foundations Cr. 3.
- EDUS 7570 STEM Education Policy & Leadership Cr. 3.
- CUED 7510 Instructional Design Foundations Cr. 3. OR
- CUED 7520 Teaching and Learning Online Cr. 3. OR
- CUED 7530 Designing Integrated Technology Environments Cr. 3.

#### Practicum and Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# **Advisor Guided Electives**

Students, at the advice of their advisor and/or committee, may take 6000, or 7000 level courses from the following subject list.

- AGED Agricultural Education
- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education
- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Instructional Leadership, Ed.S.

https://www.tntech.edu/education/ci/graduate.php

Instructional Leadership, Ed.S. Program Information

# **Degree Requirements**

The Education Specialist degree (Ed.S.) is a 30 hour degree program. This program prepares educational professionals for positions as school administrators in the state of Tennessee.

- Core Coursework: 24 hours
- Research Coursework: 6 hours
- Total Degree Requirements: 30 hours

# Core Coursework:

- INSL 7510 School Leadership Law and Ethics Cr. 6.
- INSL 7520 Human Resources Management and Public Relations Cr. 6.
- INSL 7530 Assessment and Evaluation: Improvement in Teaching Cr. 6.
- INSL 7010 Instructional Leadership Cr. 3.
- INSL 7400 School Leadership and Supervision Cr. 3.

# Research Coursework

- CUED 7801 Lab and Field Experiences in Education/Technology Focus Cr. 3. OR
- CUED 7802 Lab and Field Experiences in Education/Grant Writing Focus Cr. 3. OR
- CUED 7803 Lab and Field Experiences in Education/Autoethnography Focus Cr. 3.
- CUED 7910 Advanced Research Project in Education Cr. 3.

# **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# **Students Engaging, Responding, Volunteering, & Impacting Communities Everywhere (SERVICE) Certificate**

# Students Engaging, Responding, Volunteering, & Impacting Communities Everywhere (SERVICE) Certificate

The Students Engaging, Responding, Volunteering, & Impacting Communities Everywhere (SERVICE) Certificate requires 12 credit hours of coursework (or equivalent). The certificate requires 6 credit hours of coursework to come from the College of Education and provides the option of the additional 6 hours to be attained from any TTU unit with appropriate service learning courses/options available. Service Learning opportunities are available in a number of courses offered by the Department of Curriculum and Instruction, but students may also accumulate hours by self- identifying and pursuing service learning opportunities in the community.

Up to 6 credit hours of the 12 required may be certified by completing the equivalent of 90 clock hours (1 credit hour = 15 clock hours) of service learning. These hours must be pre-approved by the TTU Office of

Service Learning who will track hours accumulated and maintain records of completion. Students will be able to count these hours in the certificate by enrolling in a Service Learning course (zero credits; no cost) in the semester in which the hours are completed.

- 1. The definition(s) of Service Learning as documented by the TTU Office of Service Learning will be used to guide decisions concerning what activities can be approved for the certificate. Decisions of that office will preside.
- 2. Coursework/clock hours for service learning in which students are receiving compensation (e.g., paid tutoring) and/or financial gain (e.g., scholarships) cannot be counted for the certificate as this would constitute double-dipping.

Students may choose from among the courses listed below. Special topics courses can be offered at both undergraduate and graduate levels as needed to provide additional opportunities. Please talk with the Department of Curriculum & Instruction for details.

Students may also take any course certified by the TTU Office of Service Learning as eligible (see their website each semester for updated lists).

# Certificate Requirements

- College of Education Courses (see appropriate list of courses below): 6-12 credit hours\*
- Advisor Guided Electives (see appropriate list of courses below) or Pre-Approved clock hours: 6 credit hours
- **TOTAL:** 12 credit hours

\*Note: Certificate requires 6 credit hours of coursework to come from within the College of Education. (See list of course prefixes listed below.)

# Courses Open to Education Majors

- SEED 4322 (5322) Teaching Algebra in Middle/High School Cr. 3.
- SPED 4200 (5200) Teaching Students with Autism Spectrum Disorders Cr. 3.

# Courses Open to All Majors

- CUED 4750 (5750) Service Learning Informal STEM Education Cr. 0-3.
- CUED 4850 (5850) Workshop in Education Cr. 1-6.
- CUED 4900 (5900) Study Abroad Cr. 1-6.
- CUED 6750 (7750) Service Learning Informal STEM Education Cr. 0-3.
- SVCL 4150 (5150) Topics Cr. 0-9.
- SVCL 6150 (7150) Topics Cr. 0-9.
- SVCL 4920 (5920) Service Learning in Your Community Cr. 0-3.
- SVCL 6920 (7920) Service Learning in Your Community Cr. 0-3.

# College of Education Course Prefixes

- CTE Career Technical Education
- CFS Child and Family Studies
- CUED Curriculum Education
- ECED Early Childhood Education
- ECSP Early Childhood Special Education

- ELED Elementary Education
- ESLP English as a Second Language Pedagogy
- FOED Foundations of Education
- INSL Instructional Leadership
- LSCI Library Science
- READ Reading
- SEED Secondary Education
- SPED Special Education
- ABAP Applied Behavioral Analysis
- EDU Education
- EDUB Behavior
- EDUC Young Children
- EDUL Literacy
- EDUP Program Planning & Evaluation
- EDUS STEM Education
- CSED Computer Science Education
- ESOL English as a Second or Other Language
- SVCL Service Learning
- EXPW Exercise, Physical Education and Wellness
- HEC Human Ecology
- MUS Music
- MUED Music Education
- EDUH Health Behavior/Wellness Education

# **Computer Science Education Certificate**

# **Computer Science Education Certificate**

The Certificate in Computer Science Education is the first computer science education licensure option in the State of Tennessee. This program allows the preservice and inservice teacher to receive license endorsements, while promoting and integrating computer science education in the K-12 environment. The curriculum is a combination of courses designed around state and national standards for computer science education. The certificate is 12 credit hours, and includes courses in Curriculum and Instruction.

The certificate is open to all graduate students admitted to Tennessee Tech University. Students outside of the Curriculum and Instruction major will coordinate academic advising with the students major advisor and an advisor in Curriculum and Instruction.

#### **Certificate Requirements**

- CSED 6000 Digital Literacy and Computing Cr. 3.
- CSED 6010 Programming Fundamentals and Comptational Thinking for Educators Cr. 3.
- CSED 6020 Computer Science Concepts and Design Cr. 3.
- CSED 6030 Computer Science Instructional Methods Cr. 3.

# Total hours required: 12

# Certificate

# Instructional Design and Virtual Teaching Certificate

The Instructional Design and Virtual Teaching certificate program is designed to enhance current concentrations within Curriculum and Instruction and create new pathways for faculty, administration, and students in this rapidly expanding field. This certificate is open to all graduate students at Tennessee Tech.

- Core Required Courses: 12 hours
- TOTAL: 12 hours

The certificate consists of a four-course sequence that is developed to support and prepare professionals for the challenges and opportunities of instructional design and virtual teaching principles. The certificate has a defined set of four core courses for a total of 12 hours. Core course requirements include the following courses:

# **Certificate Requirements (12 Hours)**

- CUED 6430 Design Studio: Production of Instructional Materials Cr. 3.
- CUED 6450 Immersive Technologies for Teaching and Learning Cr. 3.
- CUED 7510 Instructional Design Foundations Cr. 3.
- CUED 7540 Applied Instructional Design and Learning Analytics Credit 3.

# **Department of Curriculum and Instruction Information**

- Departmental Overview
- Curriculum and Instruction Graduate Admissions
- Curriculum and Instruction BS/MA Fast Track Program
- Teacher Licensure

# **Departmental Overview**

The department of Curriculum and Instruction offers graduate degrees at the master, specialist, and doctoral level. Each degree program offers a variety of concentration areas and licensure opportunities. In addition to the three degree programs managed by the department of Curriculum and Instruction, the department directs the Instructional Leadership degree program that houses the master and specialist in Instructional Leadership.

# **Curriculum and Instruction Graduate Admissions**

Curriculum and Instruction, Ed.S. Program Information

Curriculum and Instruction, M.A. Program Information

# Curriculum and Instruction BS/MA Fast Track Program

The Fast Track program is designed to enable TTU undergraduates to accumulate up to six (6) credit hours of graduate coursework, to satisfy both undergraduate and graduate degree requirements, while still pursuing their undergraduate degree. The coursework would enable an efficient graduate program transition with the potential for accelerated completion. The courses must be taken at Tennessee Tech University.

The minimum admission requirements for participating in the C&I Fast Track Program are:

- Enrolled as a TTU undergraduate with at least 90 hours of completed courses or Spring semester of Junior year within their program of study.
- Overall GPA of at least 3.25 or better
- Recommendation from the student's undergraduate advisor
- Course approval from C&I graduate faculty or graduate faculty advisor

Program participants should consult with their undergraduate and/or future graduate advisor regarding appropriate graduate courses to take and must earn a minimum grade of "B" in the graduate courses in order to apply them to their M.A. program of study. Students who do not succeed in their first graduate course (B grade or better) will be advised to withdraw from the Fast Track program and complete their B.S. degree in a normal manner.

Fulfilling the above minimum requirements does not guarantee admission to the Fast Track program. Students who meet the above minimum admission requirements must apply to the Department for admission to the Fast Track program. The department's graduate committee will review the application and make a decision for approval.

In addition to the requirements for admission to the Fast-track BS/MA program, all requirements for admission to the graduate program must also be met upon graduation. Meeting these minimum requirements does not guarantee admission to the graduate program.

# Admission to Candidacy

Students in both the M.A. and Ed.S. programs must complete the CITI Program: Research, Ethics, and Compliance Training as a requirement for admission to candidacy.

# **Comprehensive Examination**

Completion of CUED 6305 or CUED 6315 or CUED 7910 will meet the requirements for the comprehensive exams and satisfy graduate school requirements for all M.A. and Ed.S. programs in the department.

# **Teacher Licensure**

In addition to the 33 credit hour Master's degree program, many students within Curriculum and Instruction add a teaching license which may include an additional 17 credit hours of coursework. Upon admittance to the Teacher Education Program, a customized program of study will be developed for the appropriate licensure program.

Concentration	Licensure
Early Childhood Education	Early Childhood
Early Childhood Education	Lic Special Education Early Childhood
Elementary Education	Elementary Education K-5

Library Science	Library Information Specialist
Secondary Education	English 6-12
Secondary Education	Biology 6-12
Secondary Education	Chemistry 6-12
Secondary Education	Earth Science 6-12
Secondary Education	Math 6-12
Secondary Education	Math 6-8
Secondary Education	Physics 6-12
Secondary Education	History/Geography/Government/Economics/Social Studies, 6-12
SPED	Lic SE Comprehensive
SPED	Lic SE Interventionist K-8
SPED	Lic SE Interventionist Biology 6-12
SPED	Lic SE Interventionist English 6-12
SPED	Lic SE Interventionist History 6-12
SPED	Lic SE Interventionist Math 6-12

# **Curriculum and Instruction, M.A. Program Information**

# Master of Arts in Curriculum and Instruction

# **Degree Programs**

https://www.tntech.edu/education/ci/graduate.php

# Master of Arts Degree Admission Requirements

Students pursuing graduate study in the Department of Curriculum and Instruction have the option of three (3) types of programs leading to the Master of Arts degree: 1) licensure; 2) non-licensure; and 3) post-baccalaureate.

# Requirements for Admission in Full Standing (Licensure, Non-licensure, and Postbaccalaureate programs):

- For full admission, overall undergraduate GPA of 2.75 or above upon completion of a baccalaureate degree program.
- Provide contact information for three references (name and email)
- Successfully complete additional College of Graduate Studies application requirements (transcripts, application, etc.)

# Additional Admission Requirements for Provisional Standing (Licensure, Nonlicensure, and Post-baccalaureate programs):

- Provisional standing may be requested by a departmental evaluation when the undergraduate GPA is lover than 2.75. Teacher licensure standards may require a separate minimum GPA for licensure.
- To advance from provisional to full admission, a student must earn a minimum of 3.0 GPA on the first nine (9) hours of graduate study.

# Additional Admission Requirements for International Students (Licensure, Nonlicensure, and Post-baccalaureate programs):

International applicants must also meet or exceed the minimum English Language Requirements as set by the College of Graduate Studies in the current Graduate Catalog.

# **Curriculum and Instruction, Ed.S. Program Information**

# Specialist in Education Degree Admission Requirements

https://www.tntech.edu/education/ci/graduate.php

# Requirements for Admission in Full Standing (Licensure, Non-licensure, and Postbaccalaureate programs):

- For full admission, overall undergraduate GPA of 3.0 or above earned in a Master's degree program from an accredited institution.
- Provide contact information for three references (name and email)
- Successfully complete additional College of Graduate Studies application requirements (transcripts, application, etc.)

# Additional Admission Requirements for Provisional Standing (Licensure, Nonlicensure, and Post-baccalaureate programs):

- Provisional standing may be requested by a departmental evaluation when the graduate GPA is lover than 3.0. Teacher licensure standards may require a separate minimum GPA for licensure.
- To advance from provisional to full admission, a student must earn a minimum of 3.0 GPA on the first nine (9) hours of graduate study.

# Additional Admission Requirements for International Students (Licensure, Nonlicensure, and Post-baccalaureate programs):

International applicants must also meet or exceed the minimum English Language Requirements as set by the College of Graduate Studies in the current Graduate Catalog.

# Specialist in Education Degree Requirements

A minimum of 30 semester hours beyond the master's degree, in approved upper-level courses, will be required in the Ed. S. program. At least 15 semester hours must be taken in courses numbered at the 7000 level; no course below the 6000 level shall be counted for credit unless written approval is obtained from the student's advisory committee, the chairperson of the department in which the student is majoring, and the Associate Dean of the College of Graduate Studies.

The program of study leading to the Specialist in Education degree (Ed.S.) will be designed for each student so as to achieve proper balance between the experiences required for training as a specialist and those required for development as a professional working with other. The program will therefore be tailored to serve the needs and objectives of the individual student.

Although a thesis is not required in the specialist program, the student is expected to become well acquainted with research in the field of specialization and to demonstrate competence in research methodology. In order to satisfy these expectations, the student must earn at least three (3) semester hours in courses of a laboratory and/or field experience nature and three (3) semester hours in an independent study project.

- Core Concentration Area Coursework: VARIES
- Advisor Guided Electives: VARIES
- Research Coursework: VARIES
- Total Degree Requirements: 30 hours
- Total Degree Requirements and Licensure\*: VARIES

\*All licensure components involve recommendations from the Office of Teacher Education.

# Instructional Leadership, M.A. Program Information

The Instructional Leadership (INSL) online program prepares graduate candidates seeking licensure for positions as school administrators in the state of Tennessee.

# Admissions Requirements

In addition to the Department of Curriculum and Instruction Master's admission requirements, additional requirements for applicants of the M.A. in Instructional Leadership (INSL) program are:

- 1. A valid TN teaching license
- 2. A minimum of two (2) years teaching experience required

# Graduation Requirements

- The candidate must pass the praxis exam, School Leaders Licensure Assessment (SLLA)
- Each candidate will be instructed to register for the School Leaders Licensure Assessment (SLLA) at the appropriate time during their program of study by an INSL advisor

# Instructional Leadership, Ed.S. Program Information
The Instructional Leadership (INSL) online program prepares graduate candidates seeking licensure for positions as school administrators in the state of Tennessee.

#### Admissions Requirements

In addition to the Department of Curriculum and Instruction Specialist in Education admission requirements, additional requirements for applicants of the Ed.S. in Instructional Leadership (INSL) program are:

- 1. A valid TN teaching license
- 2. A minimum of two (2) years teaching experience require

### Graduation Requirement

- The candidate must pass the praxis exam, School Leaders Licensure Assessment (SLLA)
- Each candidate will be instructed to register for the School Leaders Licensure Assessment (SLLA) at the appropriate time during their program of study by and INSL advisor

# Department of Exercise Science, Physical Education, and Wellness

# **Department of Exercise Science**

- Exercise Science Website
- Department of Exercise Science Information

Christy Killman, Chairperson and Departmental Graduate Coordinator/Advisor

Departmental Graduate Faculty: Christy Killman, Ajit Korgaokar, David Mann, Anthony Mortara, Greg Palevo, Michael Phillips, Jessica Richards, Scott Smith, and Lisa Witherspoon

# **Master of Arts**

# Exercise Science, Adapted Physical Education Concentration, M.A.

### Degree Requirements

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

# Degree Requirement

- Core Required Courses: 6 hours
- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

### Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

#### Adapted Physical Education Concentration (15 hours)

- SPED 6010 Survey of Disability Characteristics, Procedures, and Methods in Special Education Cr. 3.
- SPED 6060 Education of Orthopedic and Motor Impaired Cr. 3.
- EXPW 6140 Assessment and Strategies for Adapted Physical Education Cr. 3.
- Electives 6 credit hours from any EXPW 5000-6000 or SPED 5000-6000 level course.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exercise Science, Elementary & Middle School Physical Education Concentration, M.A.

#### Degree Requirements

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

# Degree Requirement

- Core Required Courses: 6 hours
- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

## Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

## Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

#### Elementary & Middle School Physical Education Concentration (15 hours)

- EXPW 6210 Curriculum Design in Physical Education Cr. 3.
- EXPW 6350 Instructional Strategies for Physical Education Cr. 3.
- EXPW 6450 Teaching Middle School Physical Education Cr. 3.
- EXPW 6140 Assessment and Strategies for Adapted Physical Education Cr. 3. OR
- EXPW 6250 Applied Motor Development and Motor Learning Cr. 3. OR
- EXPW 6700 Independent Study Cr. 1-3.
- Electives 3 credit hours from any EXPW 5000-6000 level course.

# Teacher Licensure Option (EMPE requirement plus 20 credit hours for licensure)

Student must be admitted to Teacher Education program.

- EXPW 6140 Assessment and Strategies for Adapted Physical Education Cr. 3.
- EXPW 6210 Curriculum Design in Physical Education Cr. 3.
- EXPW 6350 Instructional Strategies for Physical Education Cr. 3.
- EXPW 6450 Teaching Middle School Physical Education Cr. 3.
- Advisor Guided Elective 3 credit hours. (EXPW 5000,6000, or 7000 level)

# Licensure Requirement (20 credit hours)

(Only students who's concentration is EMPE may take the additional 20 hours to gain the k-12 PE teaching license.)

- EXPW 6100 Instruction in Physical Education Cr. 3.
- EXPW 6595 Field Experience in Physical Education Cr. 3.
- EXPW 6880 Student Teaching in Physical Education Cr. 9.
- EXPW 6881 Professional Seminar in Physical Education Cr. 2.
- EXPW 6440 Physiology of Exercise Cr. 3. OR
- EXPW 5940 Fitness and Wellness Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exercise Science, Fitness and Lifetime Wellness Concentration, M.A.

#### Degree Requirements

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

## Degree Requirement

- Core Required Courses: 6 hours
- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

## Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

## Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

### Fitness and Lifetime Wellness Concentration (15 hours)

- EXPW 5940 Fitness and Wellness Cr. 3.
- EXPW 6042 Wellness Promotion Cr. 3.
- EXPW 6440 Physiology of Exercise Cr. 3.
- EXPW 6250 Applied Motor Development and Motor Learning Cr. 3. OR
- EXPW 6590 Field Experience Cr. 3. OR
- EXPW 6720 Legal, Ethical & Risk Management Issues in Sport Management Cr. 3.
- Elective 3 credit hours from any EXPW 5000-6000 level course.

#### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# Exercise Science, Sport Management Concentration, M.A.

### Degree Requirements

The Master of Arts in Exercise Science is a 30-33 credit hour degree program. Teacher Licensure is available and requires an additional 20 hours to obtain such licensure. Degree requirements are summarized as follows:

# Degree Requirement

- Core Required Courses: 6 hours
- Research Project Course Requirement: 9 hours
- Concentration Required Courses: 15-18 hours
- Total Degree Requirement: 30-33 hours

At least 70% of courses taken must be at the 6000 level.

## Core Required Courses (6 hours)

- EXPW 6230 Seminar in Exercise Science Cr. 3.
- EXPW 6240 Assessment in Exercise Science Cr. 3.

## Capstone Research Project Course Requirement (9 hours)

- EXPW 6510 Research Methods Cr. 3.
- EXPW 6530 Qualitative Research in Exercise Science Credit 3.
- EXPW 6550 Capstone Project Credit 3.

#### Sport Management Concentration (18 hours)

- EXPW 6710 Leadership and Management in Sport Cr. 3.
- EXPW 6720 Legal, Ethical & Risk Management Issues in Sport Management Cr. 3.
- EXPW 6730 Administration and Supervision of Sport Cr. 3.
- EXPW 6740 Sport Marketing and Promotions Cr. 3.
- EXPW 6750 Design & Management of Leisure & Sport Facilities Cr. 3.
- EXPW 6760 Internship in Sport Management Cr. 3.

#### **Course Substitutions**

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# **Department of Exercise Science Information**

- Departmental Overview
- Curriculum & Instruction Ed.S.
- Exceptional Learning Ph.D.
- Departmental Admission Requirements for Online Master of Arts
- BA/MA Fast Track Program

#### **Departmental Overview**

The department offers an online Master of Arts degree in Exercise Science with areas of concentration in elementary/middle school physical education, fitness and lifetime wellness, adapted physical education, and sport management. Additionally, candidates may choose to take 20 directed hours in conjunction with the elementary/middle school concentration in pursuit of a Tennessee teaching license in k-12 physical education and health. The elementary/middle school concentration of Educator Preparation (CAEP). Field experience, internships and practicum work can be performed at the student's location and monitored through the online platform. Candidates complete comprehensive exams online through the required Tk20 student account, eliminating the need for any Master of Arts student to ever have to come to campus.

The following are brief descriptions of each of the concentrations:

- Adapted Physical Education Typically, this concentration provides current practitioners with coursework, theory and practice to effectively lead physical education programs for individuals with special needs.
- Elementary and Middle School Physical Education This concentration is designed for students who have a current Tennessee teaching license who either want to enhance their pedagogical knowledge and/or gain background knowledge in physical education in preparation to sit for the physical education PRAXIS exam in seeking the physical education endorsement on the Tennessee teaching license.
- Fitness and Lifetime Wellness Students who are interested in health, wellness and/or performance aspects of physical activity and training will be interested in this concentration. The main focus is on practical application rather than clinical rehabilitation.
- **Sport Management** Anyone wanting to work as an administrator in various positions within the sports industry will be interested in this concentration.
- **Teacher Licensure Option** Students who wish to pursue obtaining an initial Tennessee teaching license in physical education and health will declare elementary and middle school physical education in the Master of Arts program but must also consult with the Office of Teacher Education for admission to the teacher education program and addition 20 hours of directed coursework. Any candidate wanting to pursue the teaching license must communicate directly with the Office of Teacher Education during the first semester as a Master of Arts student to be on track for timely completion of the teacher licensure option.

#### Curriculum & Instruction Ed.S.

#### Exercise Science Concentration A Flexible Online Program

To find out more, visit the C&I Ed.S. web page:

#### Exceptional Learning Ph.D.

#### Health Behaviors & Wellness Education (HBWE)

- This concentration offers cutting-edge, hands-on experiential courses along with related pedagogical methods and theory.
- HBWE research courses supply additional opportunities to research and address discipline-specific concerns.
- The comprehensive and novel design supplies students with the knowledge, skills, and abilities necessary to succeed professionally and lead change in health sciences and wellness disciplines.
- Graduate assistantships available.

#### Departmental Admission Requirements for Online Master of Arts

Applicants are expected to have earned a BS degree from an approved program. There are no restrictions on undergraduate programs of study. Admission is decided based on a multi-parameter criterion that can include the following and will be evaluated by the graduate faculty in the department:

- 1. Minimum undergraduate GPA of 2.5 for provisional admission and a minimum 2.75 undergraduate GPA for full standing;
- 2. Minimum of two (2) letters of recommendation from individuals who can address scholarly aptitude;
- 3. All undergraduate transcripts;
- 4. Candidate provide a writing sample from an undergraduate 4000 level class or complete a writing prompt (defined and provided by the department);
- 5. Letter of Intent outlining the purpose and proposed outcomes of being in the program;
- 6. Participation in interview with departmental faculty if required.

Based on the level of satisfaction of the above criteria, the department will either recommend admission to full standing, provisional standing, or deny admission. Standing status may be changed to Full standing after the student satisfies requirements specified by the department at the time of admission or upon departmental review.

### BA/MA Fast Track Program

The Fast Track program is designed to enable TTU College of Education undergraduates to accumulate up to six (6) credit hours of graduate coursework, to satisfy both undergraduate and graduate degree requirements, while still pursuing their undergraduate degree. The coursework would enable an efficient graduate program transition with the potential for accelerated completion. The courses must be taken at Tennessee Tech University.

The minimum admissions requirements for participating in the Exercise Science, Physical Education, and Wellness program Fast Track Program are:

- Enrolled in Tennessee Tech as an undergraduate Exercise Science major with at least 90 hours of completed courses within their program of study,
- Overall GPA of 3.25 or better,
- Recommendation from the undergraduate advisor, and
- Approval by departmental coordinator of graduate studies.

Fast Track program participants should consult with the undergraduate and graduate advisors regarding enrollment in the appropriate courses and must earn a minimum grade of "B" in the identified courses to apply them to their MA program of study.

Courses to be included in the Fast Track program include:

#### Dual listed courses:

EXPW 4520/5520 - Adapted Physical Education and Sport

EXPW 4730/5730 - Assessment in Exercise Science

EXPW 4440/5440 - Exercise Physiology

EXPW 4042/5042 - Health Promotion

(Courses listed at the 5000 level will include additional graduate coursework and a culminating project in each course.)

#### Graduate courses:

EXPW 6140 - Assessment and Strategies for Adapted Physical Education

EXPW 6240 - Assessment in Sport, Physical Education and Wellness

EXPW 6440 - Physiology of Exercise

EXPW 6042 - Health Promotions

In addition to requirements for admission to the Fast Track BS/MA program, all requirements for admission to the College of Graduate Studies must also be met upon graduation. Meeting the minimum requirements does not guarantee admission to the graduate program.

# **College of Engineering**

# **College of Engineering**

• College of Engineering Information **Dr. Joseph C. Slater, Dean** 

#### Department and Program Information

# Engineering, Ph.D.

#### **Degree Requirements**

The Ph.D. is a research degree. The minimum requirements for a Ph.D. degree in the College of Engineering stated below are the same for all departments. Each department may include additional degree requirements for students pursuing a concentration in that department.

#### Ph.D. Concentration Areas Include:

Chemical Engineering

- Computer Science
- Civil Engineering
- Electrical and Computer Engineering
- Mechanical Engineering

# Students Admitted with a Master's Degree

- Advisor Approved Coursework (6 credit hours must be 7000 level courses)\*: 18 hours
- Concentration Coursework\*: 6 hours
- Research and Dissertation (7990 COURSE): 24 hours
- Total Degree Requirement: 48 hours
- 1. A minimum of 48 credits of course work and doctoral research and dissertation as follows:
  - A. A minimum of eighteen (18) credit hours of course work beyond the master's degree, including six (6) credit hours of 7000-level courses acceptable to the student's advisory committee. Additional six (6) credit hours of either graduate level course work or research experience as per the policy of the student's major department. No 5000-level courses are to be used to meet the minimum requirements of course work.
  - B. A minimum of twenty four (24) credit hours of doctoral research and dissertation built upon the student's course of study and making a significant contribution to the state of knowledge or to the art of the engineering profession, is required; not more than nine (9) credit hours may be earned in a particular semester.
- 2. Residence of four (4) semesters beyond the master's degree, with at least two (2) semesters in continuous residence, is required. All requirements, including the dissertation, must be completed within a period of eight (8) consecutive years.
- 3. Maintenance of a minimum quality point average of 3.0 and adherence to the general regulations of the College of Graduate Studies are expected.

All students in the program must follow a plan of study and research developed in conjunction with an advisory committee, satisfactorily complete a comprehensive examination, achieve candidacy, and satisfactorily defend their dissertation.

# Students Admitted Directly from the Bachelor's Degree into the Ph.D. Degree Program

- Advisor Approved Coursework (minimum 6 credit hours of 7000-level courses) (maximum 9 credit hours of 5000-level courses)\*: 42 hours
- Concentration Coursework\*: 6 hours
- Research and Dissertation (7990 COURSE): 24 hours
- Total Degree Requirements: 72 hours

A student admitted with a bachelor's degree on exceptional basis must successfully complete a qualifying examination based mostly on undergraduate materials before the end of the second semester of enrollment. Students with a Bachelor of Science (B.S.) degree from ABET-accredited programs are exempted from this examination. Other students without such a degree, or M.S. students without an ABET-accredited B.S. degree, switching to direct Ph.D. will have to take a qualifying exam through a formal process established by the department. The process should include at a minimum an examination of the student's fundamental knowledge managed by the Graduate Committee of the department.

Based on the student's performance on the qualifying examination, the student may be (i) permitted to continue in the doctoral program, or (ii) advised to transfer to an M.S. degree program in an appropriate discipline in the college, or (iii) recommended for termination from the graduate program of the college.

If permitted to continue in the doctoral program, the student, as described elsewhere in the catalog, will select a research advisor, form an advisory committee, and submit a program of study satisfying the following requirements.

The program of study should have a minimum total of seventy two (72) credit hours of academic work, consisting of course work and dissertation work, beyond baccalaureate work, subject to the following:

- The program of study should include a minimum of forty two (42) credit hours of appropriate graduate level course work consisting of a minimum of six (6) credit hours at the 7000-level and a maximum of nine (9) credit hours at the 5000-level, acceptable to the student's advisory committee.
- It should also include an additional six (6) credit hours of either graduate level course work or research experience as per the policy of the student's major department.
- A minimum of 24 credit hours of doctoral research and dissertation, built upon the student's course of study and making significant contribution to the state of knowledge and the art of the engineering profession, is required; no more than nine (9) credit hours may be earned in a particular semester.

# Students Admitted Directly from the Bachelor's Degree into the Ph.D. Program Earning a Non-thesis M.S. en route

All conditions stated above for the students admitted directly into the Ph.D. program apply. In addition:

Nine (9) credit hours will count toward the non-thesis M.S. degree and toward the Ph.D. degree. If the departmental non-thesis M.S. requires a three (3) credit hour non-thesis project course, those three (3) credit hours can be counted as three (3) credit hours of dissertation research toward the Ph.D. degree. Six (6) credit hours of M.S. coursework can be counted toward the Ph.D. coursework. If no project course is required for the non-thesis M.S., then nine (9) credit hours of M.S. coursework can be counted toward the Ph.D. degree. Six required for the non-thesis M.S., then nine (9) credit hours of M.S. coursework can be counted toward the Ph.D.. (Mechancial Engineering students may apply three (3) credit hours of either ME 6990 Research and Thesis or ME 7990 Research and Dissertation to satisfy the independent learning requirment for the non-thesis M.S. program.)

# \* Advisor Approved Electives and Concentration Coursework:

Selection of appropriate courses will be made in consultation with the student's advisory committee and/or the graduate coordinator. Courses for each concentration area and Advisor Approved Electives will include:

- Chemical Engineering (CHE 6000, CHE 7000 level courses)
- Computer Science (CSC 6000, CSC 7000 level courses)
- Civil Engineering (CEE 6000, CEE 7000 level courses)
- Electrical and Computer Engineering (ECE 6000, ECE 7000 level courses)
- Mechanical Engineering (ME 6000, ME 7000 level courses)

# Limitation on Graduate Assistantships

It is expected that a full-time, post master's Ph.D. Engineering student should be able to achieve candidacy within the first three (3) calendar years after enrollment, and a direct admit Ph.D. Engineering student after four (4) calendar years. If candidacy is not achieved within the aforementioned periods, a student must request and receive approval for an extension of assistantship following the College of Engineering's established procedure. An extension may be granted by the Associate Dean of Engineering for Research and Innovation. This limitation is regardless of student funding or the source of support for the student.

# **Department of Chemical Engineering**

- Chemical Engineering Website
- Department of Chemical Engineering Information

Departmental Graduate Faculty: Pedro E. Arce, Laura Arias Chavez, Joseph J. Biernacki, Bahman Ghorashi, Venkat Padmanabhan, J. Robby Sanders, Liqun Zhang.

# **Chemical Engineering, M.S.**

Chemical Engineering Program Information

#### Non-Thesis Option

The M.S. in Chemical Engineering with non-thesis option requires a minimum of 34 credit hours in coursework and is defined as follows:

#### **Degree Requirements**

- Core Required Course: 1 hours
- Advisor Approved Electives\*: 30 hours
- Non-Thesis Project Course: 3 hours
- Total Requirements Non-Thesis Option: 34 hours

\* Advisor Approved Elective courses may be selected from CHE 5000, 6000, 7000 level courses

# Non-Thesis Core Requirement (1 hours)

Non-thesis students will enroll in one hour of seminar.

- CHE 6920 Chemical Engineering Graduate Seminar Cr. 1. OR
- CHE 6910 Chemical Engineering Graduate Seminar Cr. 1.

# Non-Thesis Advisor Approved Electives (30 hours)

Selection of appropriate courses (CHE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Non-Thesis Project Requirement (3 hours)

• CHE 6970 - Non-Thesis Design Project Cr. 3.

### Thesis Option

The M.S. in Chemical Engineering with the Thesis Option is a 30 hour degree program and is defined as follows:

#### **Degree Requirements**

- Advisor Approved Electives\*: 24 hours
- Thesis Research Hours: 6 hours
- Total Requirements Thesis Option: 30 hours

\* Advisor Approved Elective courses may be selected from CHE 5000, 6000, 7000 level courses

# Thesis Advisor Approved Electives (24 hours)

Selection of the appropriate courses (CHE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Thesis Research Requirement (6 hours)

• CHE 6990 - Research and Thesis Cr. 1,3,6,9.

# **Department of Civil and Environmental Engineering**

- Civil and Environmental Engineering Website
- Department of Civil and Environmental Engineering Information

Benjamin J. Mohr, Chairperson

Departmental Graduate Faculty: Julia Avera, Daniel A. Badoe, Steven M. Click, L. K. Crouch, Tiana Datta, R. Craig Henderson, Timothy Huff, X. Sharon Huo, Alfred Kalyanapu, Y. Jane Liu, Benjamin J. Mohr, Guillermo Ramirez, Daniel Vandenberge, Lenly J. Weathers

# **Civil Engineering, M.S.**

#### **Departmental Degree Requirements**

To receive an MS degree in CEE, the student should complete all the MS requirements specified by the University and the College of Engineering. Additionally, certain departmental requirements listed below shall also be satisfied:

# Thesis Option (31 hours)

An MSCE program of study with thesis option requires a minimum of 31 semester hours of graduate-level coursework which are on the program of study approved by the student's graduate advisory committee, including one semester hour of CEE 6910 - CEE Graduate Seminar, and a minimum of six (6) hours of thesis completed under the supervision of the graduate advisor (31 hours). At least 15 credit hours of graduate coursework must be CEE courses. The required thesis should document the student's research to the satisfaction of both the student's graduate advisory committee and the Graduate School. The student must also successfully defend his/her thesis before the graduate advisory committee. A minimum GPA of 3.0 is also required. Other departmental requirements may apply.

#### **Degree Requirements**

- Core Required Course: 1 hour
- Concentration Area Requirement\*: 15 hours
- Advisor Approved Electives\*: 9 hours
- Research Requirement: 6 hours
- Degree Total Requirements: 31 hours

\* Concentration Area and Advisor Approved Electives maybe selected from CEE, CHE, CSC, EMGT, ENGR, ME, BIOL, ESS, EVS, GEOG, MATH, OR CHEM 5000, 6000, 7000 level courses.

### Core Required Course (1 hour)

• CEE 6910 - CEE Graduate Seminar Cr. 1.

## Concentration Area Requirement (15 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Advisor Approved Electives (9 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Research Requirement (6 hours)

• CEE 6990 - Research and Thesis Cr. 1,3,6,9.

# Non-Thesis Option (31 hours)

An MSCE program of study with non-thesis option requires a minimum of 31 credit hours of graduate course work, as specified in the student's approved Program of Study. This program is offered in a fully online delivery mode. The program of study shall include 30 semester hours of graduate-level coursework, one semester hour of CEE 6910 - CEE Graduate Seminar. At least 21 credit hours of graduate coursework must be CEE courses. No more than 9 credit hours at the 5000 level are permitted. Non-thesis MSCE will complete a culminating exam to reflect comprehensive knowledge gained from coursework. Successful completion of the exam is required for graduation. Other departmental requirements may apply.Degree Requirements

- Core Required Course: 1 hour
- Concentration Area Requirement\*: 21 hours
- Advisor Approved Electives\*: 9 hours
- Total Degree Requirements: 31 hours

\* Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator. Courses may include, but are not limited to, other relevant engineering disciplines (such as CHE, CSC, EMGT, ENGR, or ME) or outside of engineering such as (BIOL, CHEM, ESS, EVS, GEOG, GEOL, or MATH).

## Core Required Course (1 hour)

• CEE 6910 - CEE Graduate Seminar Cr. 1.

## Concentration Area Requirements (21 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Advisor Approved Electives (9 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator. Courses may include, but are not limited to other relevant engineering disciplines (such as CHE, CSC, EMGT, ENGR, or ME) or outside of engineering (such as BIOL, CHEM, ESS, EVS, GEOG, GEOL, or MATH).

# **Department of Computer Science**

- Department of Computer Science Website
- Department of Computer Science Information

Gerald Gannod, Chairperson

Departmental Graduate Faculty: Mohammad Alam, William Eberle, Gerald Gannod, Sheikh Ghafoor, Maanak Gupta, Muhammad Ismail Muhammad, Stacy Prowell, Akond Rahman, Mohammad Rahman, Michael Rogers, Stephen Scott, Susmit Shannigrahi, Ambareen Siraj, Doug A. Talbert, Denis Ulybyshev

# **Computer Science, M.S.**

#### Departmental Degree Requirements

To receive a Master of Science (MS) degree in Computer Science (CS) the student should complete all the MS requirements specified by the University and the College of Engineering. Additionally, certain specific departmental requirements are listed on the corresponding departmental website. A student has the option of a Thesis or Non-Thesis degree program.

# Thesis Option

The Thesis option requires 31 semester credit hours of graduate work, including 24 hours of coursework, one hour of graduate seminar (CSC 6910) and 6 hours of graduate thesis (CSC 6990). The thesis requirement includes research, the findings of which must be submitted in writing subject to the policies and satisfaction of the Graduate School and the advisory committee. In addition, each student must pass a defense of his/her research work before the advisory committee. The advisory committee shall consist of at least three members, two of which must be from the CS department, including being chaired or co-chaired by a CS faculty member.

#### **Degree Requirements**

- Core Required Course: 1 hour
- Advisor Approved Electives\*: 24 hours
- Research Requirement: 6 hours
- Total Degree Requirements: 31 hours

\* Advisor Approved Electives may be selected from CSC 5000, 6000, 7000 level courses, with a maximum of 9 hours at the 5000 level.

# Core Required Course (1 hour)

• CSC 6910 - Computer Science Seminar Cr. 1.

# Advisor Approved Electives (24 hours)

Selection of appropriate courses (CSC 5000, 6000, 7000 level, DS 5260, DS 5125, MATH 6170, MATH 6360, or MATH 6700) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Research Requirement (6 hours)

• CSC 6990 - Research and Thesis Cr. 1,3,6.

# Project Option

The Project Option requires 34 semester credit hours of graduate work, including 27 hours of coursework, one hour of graduate seminar (CSC 6910) and 6 hours graduate project (CSC 6980). For the Project Option, each student must pass a defense of her/his project work before the advisory committee. The advisory committee shall consist of at least three members, two of which must be from the CS department, including being chaired or co-chaired by a CS faculty member.

#### **Degree Requirement**

- Core Required Course: 1 hour
- Advisor Approved Electives\*: 27 hours
- Non-Thesis Project Requirement (CSC 6980): 6 hours
- Total Degree Requirements: 34 hours

\* Advisor Approved Electives maybe selected from CSC 5000, 6000, 7000 level courses with a maximum of 9 hours at the 5000 level.

### Core Required Course (1 hour)

• CSC 6910 - Computer Science Seminar Cr. 1.

## Advisor Approved Electives (27 hours)

Selection of appropriate courses (CSC 5000, 6000, 7000 level, DS 5260, DS 5125, MATH 6170, MATH 6360, or MATH 6700) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Project Requirement (6 hours)

• CSC 6980 - Masters Project Cr. 3.

#### Courses Only Option

The Courses Only Option requires 34 semester credit hours of graduate work, including 30 hours of coursework, one hour of graduate seminar (CSC 6910) and 3 hours of directed independent study (CSC 6803 or CSC 7980). For the Courses Only Option, each student must pass a comprehensive exam administered by the advisory committee. The advisory committee shall consist of at least three members, two of which must be from the CS department, including being chaired or co-chaired by a CS faculty member.

#### **Degree Requirement**

- Core Required Course: 1 hour
- Advisor Approved Electives\*: 30 hours
- Courses Only Requirement (CSC 6803 or CSC 7980 ): 3 hours
- Total Degree Requirements: 34 hours

\* Advisor Approved Electives maybe selected from CSC 5000, 6000, 7000 level courses with a maximum of 9 hours at the 5000 level.

# Core Required Course (1 hour)

• CSC 6910 - Computer Science Seminar Cr. 1.

# Advisor Approved Electives (30 hours)

Selection of appropriate courses (CSC 5000, 6000, 7000 level, DS 5260, DS 5125, MATH 6170, MATH 6360, or MATH 6700) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Courses Only Requirement (3 hours)

- CSC 6803 Directed Independent Study Cr. 3.
  - or
- CSC 7980 Directed Study Cr. 1-6.

# **Department of Electrical and Computer Engineering**

- Electrical and Computer Engineering Website
- Department of Electrical and Computer Engineering Information

#### Allen MacKenzie, Chairperson

**Departmental Graduate Faculty:** Ali T. Alouani, Jeffrey R. Austen, Indranil Bhattacharya, J. W. Bruce, Nan Chen, Cory Cooke, Tarek Elfouly, Syed Rafay Hasan, Wayne R. Johnson, Allen MacKenzie, Satish M. Mahajan, Mohamed Elsalih Abdelsalam Mahmoud, Joseph O. Ojo, Ghadir Radman, Charles Van Neste

# **Electrical and Computer Engineering, M.S.**

#### Departmental Degree Requirements

To receive an MS degree in ECE the student should complete all the MS requirements specified by the University and the College of Engineering. Additionally, certain departmental requirements listed below shall also be satisfied:

# Thesis Option

An MS-ECE program of study with thesis option requires a minimum of 24 credit hours of course work and a minimum of six (6) credit hours of thesis completed under the supervision of the graduate thesis advisor. The coursework shall include: ECE 6910 - Introduction to Graduate Research, during the first semester of study; at least 15 hours of graduate ECE courses that must include 9 credit hours of ECE graduate level breadth courses from a list maintained by the ECE Department; no more than six (6) hours of directed/independent study courses to satisfy the required minimum of 24 hours of coursework. The thesis requirement includes research, the findings of which must be submitted in writing subject to the policies and satisfaction of the College of Graduate Studies and the advisory committee. In addition, each student must pass a comprehensive exam which includes a defense of his/her research work before the advisory committee. The advisory committee shall be chaired or co-chaired by and ECE faculty member and include and additional member from the ECE Department.

#### **Degree Requirements**

- Core Required Course, ECE 6910: 1 hour
- ECE Breadth Courses\*: 9 hours
- Advisor Approved Electives (directed/independent study)\*: 6 hours
- Advisor Approved Electives\*: 8 hours
- Research and Thesis, ECE 6990: 6 hours
- Total Degree Requirements: 30 hours

\*Selection of appropriate courses (ECE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Advisor Approved Electives

#### Advisor Approved Electives (within the department)

Selection of appropriate courses (ECE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

#### Advisor Approved Electives (outside of the department )

The student's advisory committee and/or the graduate coordinator may advise a student to take courses outside of the ECE discipline. Common prefixes appropriate for the ECE program of study include: ME, MATH, CSC, CHEM, CHE, PHYS, and CEE.

# Non-thesis Option

An MS-ECE program of study with non-thesis option requires a minimum of 34 credit hours of course work and shall include: ECE 6910 - Introduction to Graduate Research, during the first semester of study; 9 credit hours of graduate level breadth courses from a list maintained by the ECE department; a minimum of twelve (12) credit hours of graduate level ECE elective courses; a three (3) credit hours ECE 6970 - Non-Thesis Design Project course that will enhance independent learning skills and a maximum of nine (9) hours of graduate level elective courses from outside the department.

- Core Required Course, ECE 6910: 1 hour
- ECE Breadth Courses\*: 9 hours
- Advisor Approved Electives\*: 12 hours
- Advisor Approved Electives\*: 9 hours
- Non-Thesis Design Project, ECE 6970: 3 hours
- Total Degree Requirements: 34 hours

\*Selection of appropriate courses (ECE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Advisor Approved Electives

#### Advisor Approved Electives (within the department)

Selection of appropriate courses (ECE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

#### Advisor Approved Electives (outside of the department )

The student's advisory committee and/or the graduate coordinator may advise a student to take courses outside of the ECE discipline. Common prefixes appropriate for the ECE program of study include: ME, MATH, CSC, CHEM, CHE, PHYS, and CEE.

# **Department of General and Basic Engineering**

Chris Wilson, Ph.D, Chair

Departmental Graduate Faculty: Mazen Hussein, John Tester

# **Engineering Management, M.S.**

Engineering Management Program Information

#### Degree Requirements

The Master of Science in Engineering Management is a 33 hour program. Students will complete a business core of courses and engineering core as follows:

- Core Business Courses: 12 hours
- Core Engineering Courses: 21 hours
- Total Degree Requirements: 33 hours

# Core Business Courses (12 hours)

- ACCT 6010 Accounting Information for Management Decisions Cr. 3.
- BMGT 6200 Organizational Leadership Cr. 3.
- FIN 6020 Financial Management Cr. 3.
- MKT 6100 Strategic Marketing Cr. 3.

# Core Engineering Courses (21 hours)

- EMGT 6100 Introduction to Engineering Management Cr. 3.
- EMGT 6210 Project Management 1 Cr. 3.
- EMGT 6220 Project Management 2 Cr. 3.
- EMGT 6230 Project Management 3 Cr. 3.
- EMGT 6300 Decision Analysis Cr. 3.
- EMGT 6900 Professional Project Cr. 3.
- ENGR 6200 Statistical Inference for Engineers Cr. 3.

# **Department of Manufacturing and Engineering Technology**

• Department of Manufacturing and Engineering Technology Information **Dale Wilson, Ph.D., Interim Chairperson** 

Departmental Graduate Faculty: Ismail Fidan, Ahmad Kamal Duckbong Kim, Kil-Won Moon, Andy E. Page

# **Department of Mechanical Engineering**

- Department of Mechanical Engineering Website
- Department of Mechanical Engineering Information

Mohan Rao, Chairperson

Departmental Graduate Faculty: Mohammad Albarkri, Steven Anton, Daniel W. Brookshear, Stephen L. Canfield, Jennifer Charlton, Pingren Chen, Jie Cui, Glenn Cunningham, Brian Damiano, Stephen A. Idem, Ethan Languri, Byron Pardue, Sally Pardue, Mohan Rao, Rory Roberts, Arman Sargolzaei, Joseph Slanter, Kwun-lon Ting, Ahmad Vaselbehagh, Christopher D. Wilson, Dale Wilson, Ying Zhang, Jiahong (John) Zhu

# Mechanical Engineering, M.S.

Mechanical Engineering Program Information

### **Departmental Degree Requirements**

The graduate program in the Mechanical Engineering Department offers a thesis, non-thesis, and fully online non-thesis option to meet the needs of the student.

# Master of Science with Thesis Option

An MS program of study with thesis option requires a minimum of 22 credit hours of graduate course work (24 credit hour maximum), as specified in the student's approved Program of Study, and either six (6) or eight (8) hours of thesis credit, for a total of 30 credit hours, completed under the supervision of the graduate thesis advisor. No more than nine (9) credit hours of the 22 credit hour total may be at the 5000-level. A minimum GPA of 3.0 is required both to graduate and to remain in good standing in the program. The thesis requirement includes research, the findings of which must be submitted in writing and are subject to the policies and satisfaction of the Graduate School Office and the advisory committee. In addition, each student must pass a comprehensive exam which includes a defense of his/her research work before the advisory committee and submit the defense results to the College of Graduate Studies.

- Advisor Approved Electives\*, including ME 6910 (1 credit hour): 22-24 hours
- Research and Thesis, ME 6990: 6-8 hours
- Total Degree Requirements: 30 hours

\* Selection of appropriate courses (ME, CSC, ECE, MATH 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Master of Science with On-line Non-Thesis Option

An MS program of study with non-thesis option requires a minimum of 33 credit hours of graduate course work, as specified in the student's approved program of study. This program is offered on-line. The program of study shall include 30 semester hours of formal, graded coursework, and three (3) semester hours of ME 6960 - Non-Thesis Project. At least seventy percent of the credit to be counted toward the MS degree (21 hours) must be at the 6000 level or above. The Non-Thesis project course will demonstrate the student's capability to engage in independent learning. The content and format of the special topics course, including the comprehensive examination, will be entirely at the discretion of the student's advisory committee. Typically the special topics course will be taken in the final semester listed on the program of study.

- Advisor Approved Electives\*: 30 hours
- Non-Thesis Project, ME 6960: 3 hours
- Total Degree Requirements: 33 hours

\*Selection of appropriate courses (ME, ECE, CSC, MATH 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# **College of Engineering Information**

- Master of Science Admission Requirements
- Master of Science Degree Requirements
- Doctor of Philosophy Admission Requirements
- Doctor of Philosophy Degree Requirements

The College of Engineering offers programs leading to the degrees of Master of Science and Doctor of Philosophy in Engineering. The Master of Science is offered with majors in chemical engineering, civil engineering, computer science, electrical and computer engineering, engineering management, and mechanical engineering. The Doctor of Philosophy in Engineering is an interdisciplinary degree program

under the direction of the advisory committees formed for each major. The Doctor of Philosophy in Engineering offers specialization in chemical engineering, civil engineering, computer science, electrical and computer engineering, and mechanical engineering.

Each M.S. and Ph.D. student has an advisory committee of faculty members which helps to guide the student's studies and progress toward completion of degree requirements. The chairperson of the committee, who must be a faculty member from the department in which the student is majoring, has special responsibility to assist the student with development of an individualized program of study and appropriate research goals.

The College operates two (2) State of Tennessee supported Centers of Excellence: Center for Manufacturing Research (CMR) and Center for Energy Systems Research (CESR). In addition, the Cybersecurity Education, Research, and Outreach Center (CEROC), established in 2016, has begun to receive State support since July of 2017. All of these centers support laboratories and facilities to support research and education in their respective areas. For additional details, refer to the College of Engineering website under "Research and Innovation".

Financial aid is available through individual departments and centers in the form of teaching or research assistantships. Full assistantships pay tuition and fees plus a monthly stipend. Partial assistantships, which pay a prorated share of tuition, fees, and a monthly stipend, are sometimes awarded.

#### Master of Science Admission Requirements

Applicants for admission to any of the MS programs offered by the departments of the College of Engineering are expected to have earned a BS degree from an approved program, or its equivalent. The admission decision is based on multiple criteria drawn from the following items:

- Undergraduate GPA of at least 3.0 on a 4.0 scale,
- GRE<sup>®</sup> General Test (GRE) scores with Quantitative greater than or equal to 50%; Verbal greater than or equal to 33%; Analytical Writing greater than or equal to 33%. Students with BS degrees in related fields from TTU are not required to take the GRE. A GRE is not required for applicants to the Computer Science MS program if their undergraduate degree is from a U.S. based institution.
- Three (3) letters of recommendation that demonstrate strong evidence for success in the graduate program.
- Availability of appropriate faculty to serve as research advisor(s).
- Participation in undergraduate research.
- Post-BS degree professional experience relevant to planned degree of study.
- Publications in peer reviewed journals and/or award-winning presentations in technical conferences.
- A score of at least 79 on the TOEFL or a minimum base score of 6.5 on the IELTS must be achieved by international students.

Based on the level of satisfaction of the above criterion, the department will either recommend admission to Full Standing, Provisional Standing, or Special Standing, or deny admission. Standing status may be changed to Full Standing after the student satisfies the requirements specified by the department at the time of admission.

Note: all MS degree programs, except Engineering Management, offer the Fast Track program to qualified applicants from the TTU BS program. See department details to find out more about Fast Track.

#### Master of Science Degree Requirements

A master's degree is a certification that the recipient is able to read with understanding and apply with profit the literature of his/her field. The general requirements for an MS degree are the same for all departments:

development and completion of a program of study which includes a minimum of 24 semester hours of course credits and at least six (6) semester hours of thesis. All pertinent regulations of the Graduate School apply.

Listed below are College of Engineering regulations that are clarifications of, or additions to, those promulgated by the Graduate School. Additional information can be found in the listings of the individual departments.

#### Advisory Committee

Every master's student is required to have an advisory committee having a minimum of three (3) members. The student is responsible for identifying, in consultation with the departmental chairperson, a faculty member who is willing to chair his/her advisory committee. In consultation with the chairperson of the committee, the student is responsible for identifying at least two (2) other faculty members who are willing to serve on his/her committee. Advisory committees may include more than three (3) members. If desired or required, two (2) members of the committee may serve as co-chairs of the committee rather than the committee having one (1) chair. If a student is not able to identify a sufficient number of faculty who are suitable and willing to serve on his/her advisory committee, the student will be advised by the departmental chairperson that he/she should either change his/her area of research interests to more closely match those of the available faculty or consider selecting another major. Failure to be able to form a committee is cause for transfer to non-degree status. Further regulations concerning the membership, appointment and responsibilities of a student's advisory committee are given in other sections of the catalog, including the sections on "Organization of the Graduate School" and "Degree Requirements."

#### Thesis/Comprehensive Examination

A thesis is required for all MS degrees in the college of engineering, except the MS in Engineering Management. All five MS degrees in the college also offer a non-thesis option.

A candidate for a master's degree must submit a thesis in writing and orally present and defend the thesis to his/her advisory committee. The meeting at which the thesis presentation and defense occurs also serves as the time for the student's final oral comprehensive examination over any or all aspects of the student's master's program. On the form on which the chairperson of the student's advisory committee reports the results of the thesis defense, the chairperson also reports the results of the comprehensive examination, including a brief synopsis of the examination.

#### Limitations on Graduate Assistantships

A master's student may receive support during the first two (2) calendar years after initial enrollment. This time limitation does not imply a student will receive support during his/her first two (2) years. Whether or not a student receives support depends on the availability of funds and the suitability of the student to carry out the responsibilities associated with the support. Support beyond the stated limits, regardless of source of funding in the College of Engineering, requires justification, which must be reviewed and approved by the Associate Dean of Engineering Research an Innovation prior to the implementation. (See College of Engineering website for the exception request form.)

#### **Doctor of Philosophy Admission Requirements**

A graduate program leading to a Doctor of Philosophy (Ph.D.) degree in Engineering is offered by the College of Engineering. When applying for admission, a student must state on the application the specialization area of study for which admission is requested.

The basic admission standards for the Ph.D. program are the same as for the MS programs, except that, additionally, an applicant is expected to have completed an MS degree in an academic area appropriate to the proposed area of study and to have earned an MS GPA of at least 3.5 on a 4.0 scale. In addition, a GRE score is not required for applicants to the PhD in Engineering with a Computer Science concentration if an applicant's undergraduate degree or Master's degree is from a U.S. - based institution.

Though the general requirement for admission to the Ph.D. program is a master's degree in an appropriate discipline, students with a bachelor's degree may be admitted to the Ph.D. program directly on exceptional basis, provided the applicant has a record of excellent academic performance in an appropriate engineering program undergraduate program. The applicant's test scores, personal recommendations, and relevant work experience must indicate a high potential for success in doctoral studies and research. In addition, factors such as appropriateness of the applicant's research objectives to the research interests of the program faculty, availability of faculty to supervise the applicant's research, and prior research accomplishments of the applicant will also influence the admission decision.

Fulfilling the minimum requirement does not guarantee admission; an applicant who does not meet the above minimum, but appears to have reasonable potential for success as a Ph.D. student, may be admitted to provisional standing. His/her status may be changed to full standing after satisfying requirements specified by the Associate Dean of Engineering for Graduate Studies and Research, in consultation with the appropriate departmental chairperson, at the time of admission.

If admitted in provisional standing at either the MS or Ph.D. level, the student must remove all deficiencies and apply for reclassification to full standing prior to the completion of 15 graduate hours.

Sometimes a master's-level student takes more graduate-level courses than are required for the degree because the student is expecting to continue on to the Ph.D. program and hopes to use the extra courses to satisfy the Ph.D. coursework requirement. When this is the case, the student can request when registering for the course(s) that the course(s) be "banked" for the Ph.D. program. If the student lacks no more than 12 semester hours on the master's degree, he/she may accumulate a maximum of nine (9) semester hours which may be applied toward the Ph.D. When this is the case, the student's advisory committee must initiate approval via memo with consensus of the departmental chairperson, dean of the college, and the Director of Graduate Studies. Banked courses then show up on the student's transcript as courses taken for the Ph.D. rather than being shown as a part of his/her M.S. program. Banking course does not guarantee admission to the Ph.D. program, or, if admitted, that the student's Ph.D. advisory committee will approve the course as part of the student's Ph.D. program of study.

#### Doctor of Philosophy Degree Requirements

The Ph.D. is a research degree. The minimum requirements for a Ph.D. degree in the College of Engineering stated below are the same for all departments. Each department may include additional degree requirements for students pursuing specialization in that department.

#### Students Admitted with a Master's Degree

- 1. A minimum of 48 credits of course work and doctoral research and dissertation as follows:
  - A. A minimum of eighteen (18) credit hours of course work beyond the master's degree, acceptable to the student's advisory committee. Additional six (6) credit hours of either graduate level course work or research experience as per the policy of the student's major department. No 5000-level courses are to be used to meet the minimum requirements of course work.
  - B. A minimum of twenty four (24) credit hours of doctoral research and dissertation built upon the student's course of study and making a significant contribution to the state of knowledge or to the art of the engineering profession, is required; not more than nine (9) credit hours may be earned in a particular semester.

- Residence of four (4) semesters beyond the master's degree, with at least two (2) semesters in continuous residence, is required. All requirements, including the dissertation, must be completed within a period of eight (8) consecutive years.
- 3. Maintenance of a minimum quality point average of 3.0 and adherence to the general regulations of the College of Graduate Studies are expected.

All students in the program must follow a plan of study and research developed in conjunction with an advisory committee, satisfactorily complete a comprehensive examination, achieve candidacy, and satisfactorily defend their dissertation.

#### Students Admitted Directly from the Bachelor's Degree into the Ph.D. Degree Program

A student admitted with a bachelor's degree on exceptional basis must successfully complete a qualifying examination based mostly on undergraduate materials before the end of the second semester of enrollment. Students with a Bachelor of Science (B.S.) degree from ABET-accredited programs are exempted from this examination. Other students without such a degree, or M.S. students without an ABET-accredited B.S. degree, switching to direct Ph.D. will have to take a qualifying exam through a formal process established by the department. The process should include at a minimum an examination of the student's fundamental knowledge managed by the Graduate Committee of the department.

Based on the student's performance on the qualifying examination, the student may be (i) permitted to continue in the doctoral program, or (ii) advised to transfer to an M.S. degree program in an appropriate discipline in the college, or (iii) recommended for termination from the graduate program of the college.

If permitted to continue in the doctoral program, the student, as described elsewhere in the catalog, will select a research advisor, form an advisory committee, and submit a program of study satisfying the following requirements.

The program of study should have a minimum total of seventy two (72) credit hours of academic work, consisting of course work and dissertation work, beyond baccalaureate work, subject to the following:

- The program of study should include a minimum of forty two (42) credit hours of appropriate graduate level course work consisting of a maximum of nine (9) credit hours at the 5000-level, acceptable to the student's advisory committee.
- It should also include an additional six (6) credit hours of either graduate level course work or research experience as per the policy of the student's major department.
- A minimum of 24 credit hours of doctoral research and dissertation, built upon the student's course of study and making significant contribution to the state of knowledge and the art of the engineering profession, is required; no more than nine (9) credit hours may be earned in a particular semester.

# Students Admitted Directly from the Bachelor's Degree into the Ph.D. Program Earning a Non-thesis M.S. en route

All conditions stated above for the students admitted directly into the Ph.D. program apply. In addition:

Nine (9) credit hours will count toward the non-thesis M.S. degree and toward the Ph.D. degree. If the departmental non-thesis M.S. requires a three (3) credit hour non-thesis project course, those three (3) credit hours can be counted as three (3) credit hours of dissertation research toward the Ph.D. degree. Six (6) credit hours of M.S. coursework can be counted toward the Ph.D. coursework. If no project course is required for the non-thesis M.S., then nine (9) credit hours of M.S. coursework can be counted toward the Ph.D.

#### Limitation on Graduate Assistantships

It is expected that a full-time, post master's Ph.D. Engineering student should be able to achieve candidacy within the first three (3) calendar years after enrollment, and a direct admit Ph.D. Engineering student after four (4) calendar years. If candidacy is not achieved within the aforementioned periods, a student must request and receive approval for an extension of assistantship following the College of Engineering's established procedure. An extension may be granted by the Associate Dean of Engineering for Research and Innovation. This limitation is regardless of student funding or the source of support for the student.

# **Department of Chemical Engineering Information**

- Departmental Overview
- Master's Degree Option
- Departmental Admission Requirements
- Departmental Degree Requirements for Doctor of Philosophy

#### **Departmental Overview**

The Master of Science degree program in the Department of Chemical Engineering is available to individuals who have completed a BS degree in Chemical Engineering or a closely allied field. The MS program's technical content and research component prepares the individual to enter the profession with advanced engineering skills.

Graduate students pursuing the MS degree develop a program of study tailored to their objectives and complete a master's thesis. Research topics in the areas of electric field-based processes and systems, biological engineering processes and systems, molecularly-based engineered materials and interfacial systems, and computational mathematics are among those available.

The faculty of the Department of Chemical Engineering actively participates in the Doctor of Philosophy program in Engineering. Admission to the doctoral program is open to individuals with outstanding academic records and potential for original research. The departmental faculty and graduate students work cooperatively with the three State funded Centers of Excellence: two within the College of Engineering and one under the Office of Research & Economic Development.

#### Master's Degree Option

The MS-CHE program of study with non-thesis option requires a minimum of 34-credit hours of course work and shall include: CHE 6920 - Graduate Seminar (1 credit) to be completed during the first fall semester of study; 9 credit hours of graduate level breadth (core) courses from a list maintained by the CHE department; a minimum of twelve (12) credit hours of graduate level CHE elective courses; a three (3) credit hours CHE 6970; Non-Thesis Design Project course that will enhance independent learning skills, and a maximum of nine (9) hours of graduate level elective courses from outside the department. Additionally, each student should also pass a written exam administered by the department.

#### **Departmental Admission Requirements**

The minimum requirements for full standing admission into the MS program are the same as those for any MS program in the College of Engineering and these are stated under the College of Engineering listing. Similarly, the minimum requirements for full standing admission into the Ph.D. program with a major in ChemE are the same as those for the Ph.D. program listed in the College of Engineering session.

#### Departmental Degree Requirements for Doctor of Philosophy

To receive a Ph.D. with specialization in ChemE, the student shall complete all the requirements for the Ph.D. specified under the College of Engineering section of the catalog.

# **Chemical Engineering Program Information**

#### **Departmental Degree Requirements**

To receive an MS degree in ChE the student should complete all the MS requirements specified by the University and the College of Engineering.

#### **BS/MS Fast Track - Chemical Engineering**

The Chemical Engineering Fast-track Master of Science (MS) program is designed to enable Tennessee Technological University ChE undergraduates to take up to six (6) hours of graduate coursework during the student's junior/senior year which can be used to satisfy both undergraduate and graduate degree requirements. ChE Fast-track MS students receiving their bachelor's degrees at the end of the Spring semester will be expected to complete the MS by the end of the Summer term of the following year.

The minimum requirements for acceptance into the Fast-track program are:

Be enrolled as an undergraduate ChE student at TTU with at least Junior standing

- Have at least an overall GPA of 3.25 and have at least a 3.25 GPA in ChE
- The student must earn a minimum grade of "B" in the graduate courses in order to apply them to their M.S. program of study and to continue in the Fast Track program. Students who do not succeed in their first graduate course during their senior year (B grade or better) will be advised to withdraw from the Fast Track program and complete their B.S. degree in a normal manner.
- In addition to the requirements for admission to the ChE Fast-track MS program, all requirements for admission to the ChE graduate program must also be met upon graduation. Meeting these minimum requirements does not guarantee admission to the graduate program.

Fulfilling the above minimum requirements does not guarantee admission to the Fast Track program. Students who meet the above minimum admission requirements must apply to the Department for admission to the Fast Track program. The department's graduate committee will review the application and make a decision for approval.

Participation in the ChE Fast-track MS program does not change the requirements for either the undergraduate or graduate degree. All students in the MS program take 30 credit hours: 24 hours of coursework and 6 hours of research and thesis.

# **Department of Civil and Environmental Engineering**

# **Department of Civil and Environmental Engineering**

- Civil and Environmental Engineering Website
- Department of Civil and Environmental Engineering Information

Benjamin J. Mohr, Chairperson

Departmental Graduate Faculty: Julia Avera, Daniel A. Badoe, Steven M. Click, L. K. Crouch, Tiana Datta, R. Craig Henderson, Timothy Huff, X. Sharon Huo, Alfred Kalyanapu, Y. Jane Liu, Benjamin J. Mohr, Guillermo Ramirez, Daniel Vandenberge, Lenly J. Weathers

# **Master of Science**

# **Civil Engineering, M.S.**

#### **Departmental Degree Requirements**

To receive an MS degree in CEE, the student should complete all the MS requirements specified by the University and the College of Engineering. Additionally, certain departmental requirements listed below shall also be satisfied:

# Thesis Option (31 hours)

An MSCE program of study with thesis option requires a minimum of 31 semester hours of graduate-level coursework which are on the program of study approved by the student's graduate advisory committee, including one semester hour of CEE 6910 - CEE Graduate Seminar, and a minimum of six (6) hours of thesis completed under the supervision of the graduate advisor (31 hours). At least 15 credit hours of graduate coursework must be CEE courses. The required thesis should document the student's research to the satisfaction of both the student's graduate advisory committee and the Graduate School. The student must also successfully defend his/her thesis before the graduate advisory committee. A minimum GPA of 3.0 is also required. Other departmental requirements may apply.

#### **Degree Requirements**

- Core Required Course: 1 hour
- Concentration Area Requirement\*: 15 hours
- Advisor Approved Electives\*: 9 hours
- Research Requirement: 6 hours
- Degree Total Requirements: 31 hours

\* Concentration Area and Advisor Approved Electives maybe selected from CEE, CHE, CSC, EMGT, ENGR, ME, BIOL, ESS, EVS, GEOG, MATH, OR CHEM 5000, 6000, 7000 level courses.

## Core Required Course (1 hour)

• CEE 6910 - CEE Graduate Seminar Cr. 1.

### Concentration Area Requirement (15 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

### Advisor Approved Electives (9 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Research Requirement (6 hours)

• CEE 6990 - Research and Thesis Cr. 1,3,6,9.

# Non-Thesis Option (31 hours)

An MSCE program of study with non-thesis option requires a minimum of 31 credit hours of graduate course work, as specified in the student's approved Program of Study. This program is offered in a fully online delivery mode. The program of study shall include 30 semester hours of graduate-level coursework, one semester hour of CEE 6910 - CEE Graduate Seminar. At least 21 credit hours of graduate coursework must be CEE courses. No more than 9 credit hours at the 5000 level are permitted. Non-thesis MSCE will complete a culminating exam to reflect comprehensive knowledge gained from coursework. Successful completion of the exam is required for graduation. Other departmental requirements may apply.Degree Requirements

- Core Required Course: 1 hour
- Concentration Area Requirement\*: 21 hours
- Advisor Approved Electives\*: 9 hours
- Total Degree Requirements: 31 hours

\* Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator. Courses may include, but are not limited to, other relevant engineering disciplines (such as CHE, CSC, EMGT, ENGR, or ME) or outside of engineering such as (BIOL, CHEM, ESS, EVS, GEOG, GEOL, or MATH).

### Core Required Course (1 hour)

• CEE 6910 - CEE Graduate Seminar Cr. 1.

## Concentration Area Requirements (21 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Advisor Approved Electives (9 hours)

Selection of appropriate courses (CEE 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator. Courses may include, but are not limited to other relevant engineering disciplines (such as CHE, CSC, EMGT, ENGR, or ME) or outside of engineering (such as BIOL, CHEM, ESS, EVS, GEOG, GEOL, or MATH).

# Department of Civil and Environmental Engineering Information

- Departmental Overview
- Fast-track M.S. Program
- Departmental Admission Requirements
- Departmental Degree Requirements for Doctor of Philosophy

#### **Departmental Overview**

The Department of Civil and Environmental Engineering offers advanced studies leading to the Master of Science degree in Civil Engineering and the Doctor of Philosophy degree in Engineering with specialization in Civil Engineering. The goals of the Ph.D. program are listed under the College of Engineering and administered by the Associate Dean of Engineering for Graduate Studies and Research. The goal of the MS program is to provide the strong academic programs necessary to prepare students to become educated members of society who can join and make significant contributions to the civil engineering profession.

This is accomplished by allowing MS graduate students to specialize in specific engineering topics through advanced and in-depth studies in these topics; by providing guidance to students in fundamental and applied research; by helping them to develop powers of analysis, synthesis and critical thinking; and by preparing outstanding graduate students to continue academic and research careers through doctoral-level studies.

The department offers the Master of Science Degree in Civil Engineering with concentrations in environmental engineering, structural engineering, and transportation engineering. The departmental faculty have expertise and conduct research in the following areas: environmental and water resources engineering; structural engineering, transportation and paving materials; engineering mechanics; and computational mechanics. Faculty advisors assist graduate students in developing individual programs of study depending on their career goals and thesis research interests. The student's advisory committee assists the student in the development and execution of the program of study and monitors and evaluates the student's work towards the degree.

Many departmental faculty actively participate in research related to the three Centers of Excellence operated within the University: two within the College of Engineering and one under the Office of Research & Economic Development. The resources and facilities of the Centers greatly enhance the graduate program of the Department.

#### Fast-track M.S. Program

The Fast-track M.S. Program in Civil Engineering will provide an opportunity for promising CEE undergraduate students to accelerate the completion of the M.S. by allowing undergraduates to accumulate up to six (6) credit hours of graduate coursework while still pursuing their undergraduate degree and to transition to the graduate program smoothly. Up to six hours of graduate coursework, exclusive of directed study, taken during the student's senior year can be used to satisfy both undergraduate and graduate degree requirements. These courses must be taken at Tennessee Tech University and must be approved as appropriate substitutions in the undergraduate curriculum for senior CEE electives.

Students must apply to the CEE Fast-track M.S. program by the end of their second junior term. Students must apply and take the GRE<sup>(R)</sup> General Test (GRE) during their second senior term (one [1] semester prior to their anticipated graduation). The CEE Fast-track students should be aware that they need to consult with their future M.S. advisor for the 5000-level courses taken during their senior terms, especially for the courses not in their area of concentration.

The minimum requirements for acceptance into the Fast-track program are:

- Enrolled in TTU Civil Engineering student with Junior or Senior standing
- Overall GPA of 3.25 and a GPA for CEE courses of at least 3.5
- Recommendation of a CEE faculty mentor
- All requirements for admission to Graduate School must be met upon graduation

#### Departmental Admission Requirements

The minimum requirements for admission to the MS program are the same as those for any MS program in the College of Engineering and are stated under the College of Engineering listing. The program is designed for graduates of approved undergraduate programs. Thus a baccalaureate degree in civil engineering is required for full standing. Applicants that have an undergraduate degree in a closely related field will be evaluated on a case-by-case basis and may be admitted to full standing upon completion of identified background courses.

For the admission requirements to the Ph.D. program, please refer to the College of Engineering program listing elsewhere in this catalog.

#### Departmental Degree Requirements for Doctor of Philosophy

Requirements for the Ph.D. degree in Engineering may be satisfied with a primary emphasis in civil engineering. The degree requirements for the Ph.D. degree are given in the College of Engineering listing. In addition, all candidates must take at least two (2) hours of CEE 6910 - CEE Graduate Seminar.

# **Department of Computer Science**

# **Department of Computer Science**

- Department of Computer Science Website
- Department of Computer Science Information

Gerald Gannod, Chairperson

Departmental Graduate Faculty: Mohammad Alam, William Eberle, Gerald Gannod, Sheikh Ghafoor, Maanak Gupta, Muhammad Ismail Muhammad, Stacy Prowell, Akond Rahman, Mohammad Rahman, Michael Rogers, Stephen Scott, Susmit Shannigrahi, Ambareen Siraj, Doug A. Talbert, Denis Ulybyshev

# **Master of Science**

# **Computer Science, M.S.**

#### **Departmental Degree Requirements**

To receive a Master of Science (MS) degree in Computer Science (CS) the student should complete all the MS requirements specified by the University and the College of Engineering. Additionally, certain specific departmental requirements are listed on the corresponding departmental website. A student has the option of a Thesis or Non-Thesis degree program.

# Thesis Option

The Thesis option requires 31 semester credit hours of graduate work, including 24 hours of coursework, one hour of graduate seminar (CSC 6910) and 6 hours of graduate thesis (CSC 6990). The thesis requirement includes research, the findings of which must be submitted in writing subject to the policies and satisfaction of the Graduate School and the advisory committee. In addition, each student must pass a defense of his/her research work before the advisory committee. The advisory committee shall consist of at

least three members, two of which must be from the CS department, including being chaired or co-chaired by a CS faculty member.

#### **Degree Requirements**

- Core Required Course: 1 hour
- Advisor Approved Electives\*: 24 hours
- Research Requirement: 6 hours
- Total Degree Requirements: 31 hours

\* Advisor Approved Electives may be selected from CSC 5000, 6000, 7000 level courses, with a maximum of 9 hours at the 5000 level.

## Core Required Course (1 hour)

• CSC 6910 - Computer Science Seminar Cr. 1.

## Advisor Approved Electives (24 hours)

Selection of appropriate courses (CSC 5000, 6000, 7000 level, DS 5260, DS 5125, MATH 6170, MATH 6360, or MATH 6700) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

## Research Requirement (6 hours)

• CSC 6990 - Research and Thesis Cr. 1,3,6.

# **Project Option**

The Project Option requires 34 semester credit hours of graduate work, including 27 hours of coursework, one hour of graduate seminar (CSC 6910) and 6 hours graduate project (CSC 6980). For the Project Option, each student must pass a defense of her/his project work before the advisory committee. The advisory committee shall consist of at least three members, two of which must be from the CS department, including being chaired or co-chaired by a CS faculty member.

#### **Degree Requirement**

- Core Required Course: 1 hour
- Advisor Approved Electives\*: 27 hours
- Non-Thesis Project Requirement (CSC 6980): 6 hours
- Total Degree Requirements: 34 hours

\* Advisor Approved Electives maybe selected from CSC 5000, 6000, 7000 level courses with a maximum of 9 hours at the 5000 level.

## Core Required Course (1 hour)

• CSC 6910 - Computer Science Seminar Cr. 1.

## Advisor Approved Electives (27 hours)

Selection of appropriate courses (CSC 5000, 6000, 7000 level, DS 5260, DS 5125, MATH 6170, MATH 6360, or MATH 6700) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Project Requirement (6 hours)

• CSC 6980 - Masters Project Cr. 3.

### **Courses Only Option**

The Courses Only Option requires 34 semester credit hours of graduate work, including 30 hours of coursework, one hour of graduate seminar (CSC 6910) and 3 hours of directed independent study (CSC 6803 or CSC 7980). For the Courses Only Option, each student must pass a comprehensive exam administered by the advisory committee. The advisory committee shall consist of at least three members, two of which must be from the CS department, including being chaired or co-chaired by a CS faculty member.

#### Degree Requirement

- Core Required Course: 1 hour
- Advisor Approved Electives\*: 30 hours
- Courses Only Requirement (CSC 6803 or CSC 7980 ): 3 hours
- Total Degree Requirements: 34 hours

\* Advisor Approved Electives maybe selected from CSC 5000, 6000, 7000 level courses with a maximum of 9 hours at the 5000 level.

# Core Required Course (1 hour)

• CSC 6910 - Computer Science Seminar Cr. 1.

# Advisor Approved Electives (30 hours)

Selection of appropriate courses (CSC 5000, 6000, 7000 level, DS 5260, DS 5125, MATH 6170, MATH 6360, or MATH 6700) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Courses Only Requirement (3 hours)

- CSC 6803 Directed Independent Study Cr. 3. or
- CSC 7980 Directed Study Cr. 1-6.

# **Department of Computer Science Information**

- Departmental Overview
- Fast Track M.S. Program in Computer Science
- Departmental Admission Requirements

#### **Departmental Overview**

The Department offers a Master of Science in Computer Science (MSCS) and a specialization in Computer Science within the PhD program in the College of Engineering.

The MSCS is available to students in the form of three options: *thesis, project, and coursework-only.* All students take a 1-hour graduate seminar. Those who select the thesis option take 6 credit hours of research in addition to 24 hours of approved graduate coursework. Students taking the project option take 3 credit hours of project work in addition to 30 hours of approved graduate coursework, and students in the coursework-only option take 3 credit hours of independent study in addition to a minimum of 30 hours of approved graduate coursework.

Students can pursue a PhD with specialization in Computer Science, through the College of Engineering PhD Program. The purpose of the PhD Program is to provide students with an opportunity for advanced studies and research in the field of engineering. As a research-based degree, the focus is on developing the independent learning skills of students in preparation for advanced- level, research-focused employment in industry or academia.

The faculty are active in a wide variety of research areas, and interested students should refer to the departmental web-site for specific details. The mission of the CS department, consistent with the mission of the University and the College of Engineering, is

To be widely recognized for enabling students to have global impact though innovative, quality programs and research that emphasizes collaborative partnerships and the success of a diverse student, faculty, and alumni community.

#### Fast Track M.S. Program in Computer Science

The Fast Track program is designed to enable TTU undergraduates to accumulate up to seven (7) credit hours of graduate coursework while still pursuing their undergraduate degree and to transition to the Computer Science graduate program smoothly, with accelerated completion.

Up to six (6) hours of graduate coursework, exclusive of directed study, can be used to satisfy both undergraduate and graduate degree requirements. These courses must be taken at Tennessee Tech University and must be approved as appropriate substitutions in the undergraduate curriculum.

The minimum requirements for acceptance to the Fast Track program are:

- Enrolled as TTU Undergraduate with junior or senior standing.
- Completed CSC 2400.
- Overall GPA of at least 3.25 and a GPA for CSC courses of at least 3.5.

Fulfilling the above minimum requirements does not guarantee acceptance into the Computer Science Fast Track program. Students who meet the above minimum requirements must consult with the Computer Science department for eligibility and acceptance.

Once accepted in the Fast Track program, students should be aware of the following:

• Program participants should consult with their future M.S. advisor regarding appropriate graduate courses to take during their junior/senior year.

• The student must earn a minimum grade of "B" in the graduate courses in order to apply them to their

M.S. program of study.

• All requirements for full admission to Graduate School must be met upon graduation.

• Students who do not succeed in their first graduate course (B grade or better) will be advised to withdraw from the Fast Track program and complete their B.S. degree in a normal manner.

#### **Departmental Admission Requirements**

The minimum requirements for admission to the MS program are the same as those for any MS program in the College of Engineering and are stated under the College of Engineering listing. The program is designed for graduates of approved undergraduate programs. Thus a baccalaureate degree in computer science is required for full standing. Applicants that have an undergraduate degree in a closely related field will be evaluated on a case-by-case basis and may be admitted to full standing upon completion of identified background courses.

For the admission requirements to the Ph.D. program, please refer to the College of Engineering program listing

# Department of Electrical and Computer Engineering Information

- Departmental Overview
- Fast Track MS Program
- Departmental Admission Requirements
- Departmental Degree Requirements for Doctor of Philosophy

#### **Departmental Overview**

The Department of Electrical and Computer Engineering offers advanced studies leading to the Master of Science degree in Electrical and Computer Engineering and the Doctor of Philosophy degree in Engineering with specialization in Electrical and Computer Engineering. The Ph.D. program is administered by the Associate Dean of Research and Innovation. The goals and the admission and degree requirements for the Ph.D. program are listed under the College of Engineering. The goals of the MS program are to prepare graduates with advanced engineering and research skills and state-of-the-art knowledge in selected areas for positions in industry and for advanced studies towards the Ph.D. The MS-ECE degree program can be pursued with either a thesis option or a non-thesis option.

The departmental faculty have expertise in the following areas of electrical engineering: circuits and signal processing; control, robotics and instrumentation, digital systems, computers, and VLSI circuit design; nuclear engineering; physical phenomenon and lasers; electric power; and telecommunications, wireless communications and networking. Graduate students may carry out their research for their thesis/dissertation in any one (1) of the above areas under the supervision of a faculty member having expertise in that area. Faculty advisors assist graduate students in developing individual programs of study depending on their career goals and thesis/dissertation research interests. The student's advisory committee assists the student in the development and execution of the program of study and monitors and evaluates the student's work towards the degree.

Many departmental faculty members actively participate in research related to the three Centers of Excellence operated within the University: two within the College of Engineering and one under the Office of Research & Economic Development. The resources and facilities of the Centers greatly enhance the graduate program of the Department.

#### Fast Track MS Program

The Fast Track program is designed to enable TTU ECE undergraduates to accumulate up to six (6) credit hours of graduate coursework while still pursuing their undergraduate degree and to transition to the graduate program smoothly, with accelerated completion. Up to six (6) hours of graduate coursework, exclusive of directed study, taken during the student's senior year can be used to satisfy both undergraduate and graduate degree requirements. These courses must be taken at Tennessee Tech University and must be approved as appropriate substitutions in the undergraduate curriculum for senior ECE electives. In order to remain in the Fast Track program, the student must demonstrate ongoing scholarship by continuing to meet the GPA admission requirements during the semester that the student enrolls in the first of their graduate courses. The student must earn a minimum grade of "B" in the graduate courses in order to apply them to their M.S. program of study and to continue in the Fast Track program. Additionally, Fast Track students will be integrated into ECE research projects and/or capstone design projects while enrolled as seniors with the expectation that this research will directly coordinate with their M.S. thesis research. Either a thesis or non-thesis M.S. option may be pursued. ECE Fast Track students that graduate with their B.S. in the spring semester can be expected to complete their M.S. requirements in either the spring or summer term of the following calendar year.

Fast Track students are only eligible for graduate teaching or research assistantship during the fifth (graduate) year of their studies. Students who do not succeed in their first graduate course during their senior year (B grade or better) will be advised to withdraw from the Fast Track program and complete their B.S. degree in a normal manner.

#### **Departmental Admission Requirements**

The minimum requirements for full standing admission into the MS program are the same as those for any MS program in the College of Engineering and these are stated under the College of Engineering listing. Similarly, the minimum requirements for full standing admission into the Ph.D. program with a major in ECE are the same as those for the Ph.D. program listed in the College of Engineering section. Applicants with impressive academic performance or publication record may be admitted on full standing status even if their GRE(R) General Test (GRE) and/or TOEFL scores do not meet the minimum requirements. The Departmental Admissions Committee evaluates each application individually for potential to succeed in the graduate program and makes an admission recommendation. Students who do not meet the minimum admission requirements or whose potential for success is not evident from the application may be considered for provisional admission. These students will be reclassified to full standing admission once they satisfy the conditions specified in the admission letter. Students with good academic background but having BS degrees in fields other than electrical engineering will be admitted on a provisional basis. They will be required to complete satisfactorily a specified set of undergraduate electrical and computer engineering courses before they are reclassified to full standing.

#### **Departmental Degree Requirements for Doctor of Philosophy**

To receive a Ph.D. degree with specialization in ECE, the student shall complete all the requirements for the Ph.D. specified under the College of Engineering section of the catalog.

Additionally, the program of study for Ph.D. students majoring in ECE shall include ECE 6910 - Introduction to Graduate Research during the first semester of study except when the student has already taken ECE 6910 as a part of the MS program or when the student has prior research experience as demonstrated by the successful completion of a master's thesis; and no more than nine hours of independent/directed study courses such as ECE 6980/ECE 7980. The ECE departmental chairperson will assist the Associate Dean in deciding the appropriateness of each program of study.

The student's advisory committee must be chaired or co-chaired by an ECE faculty member, and additionally, the committee must include at least two members of the ECE faculty, a member from the engineering faculty outside the ECE Department and one member from the Mathematics Department. The Associate Dean for Research and Innovation is an ex-officio nonvoting member of every Ph.D. student's advisory committee.

# Department of Manufacturing and Engineering Technology Information

Manufacturing and Engineering Technology provides you with STEM knowledge to work with engineers, scientists and managers on a plan while taking part in a project with the skills of a technologist or applied engineer.

### **Departmental Mission:**

To graduate innovative Engineering Technologists and Applied Engineers who solve technological challenges to meet societal needs.

The department is accredited by the Accreditation Board of Engineering and Technology (ABET), which sets standards for academic program accreditation, personal certification, and professional development for educators and industry professionals involved in integrating technology, leadership and design.

The department does not offer a graduate degree at this time.

# **Department of Mechanical Engineering**

# **Department of Mechanical Engineering**

- Department of Mechanical Engineering Website
- Department of Mechanical Engineering Information

Mohan Rao, Chairperson

Departmental Graduate Faculty: Mohammad Albarkri, Steven Anton, Daniel W. Brookshear, Stephen L. Canfield, Jennifer Charlton, Pingren Chen, Jie Cui, Glenn Cunningham, Brian Damiano, Stephen A. Idem, Ethan Languri, Byron Pardue, Sally Pardue, Mohan Rao, Rory Roberts, Arman Sargolzaei, Joseph Slanter, Kwun-lon Ting, Ahmad Vaselbehagh, Christopher D. Wilson, Dale Wilson, Ying Zhang, Jiahong (John) Zhu

# **Master of Science**

# Mechanical Engineering, M.S.
Mechanical Engineering Program Information

### **Departmental Degree Requirements**

The graduate program in the Mechanical Engineering Department offers a thesis, non-thesis, and fully online non-thesis option to meet the needs of the student.

### Master of Science with Thesis Option

An MS program of study with thesis option requires a minimum of 22 credit hours of graduate course work (24 credit hour maximum), as specified in the student's approved Program of Study, and either six (6) or eight (8) hours of thesis credit, for a total of 30 credit hours, completed under the supervision of the graduate thesis advisor. No more than nine (9) credit hours of the 22 credit hour total may be at the 5000-level. A minimum GPA of 3.0 is required both to graduate and to remain in good standing in the program. The thesis requirement includes research, the findings of which must be submitted in writing and are subject to the policies and satisfaction of the Graduate School Office and the advisory committee. In addition, each student must pass a comprehensive exam which includes a defense of his/her research work before the advisory committee and submit the defense results to the College of Graduate Studies.

- Advisor Approved Electives\*, including ME 6910 (1 credit hour): 22-24 hours
- Research and Thesis, ME 6990: 6-8 hours
- Total Degree Requirements: 30 hours

\* Selection of appropriate courses (ME, CSC, ECE, MATH 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# Master of Science with On-line Non-Thesis Option

An MS program of study with non-thesis option requires a minimum of 33 credit hours of graduate course work, as specified in the student's approved program of study. This program is offered on-line. The program of study shall include 30 semester hours of formal, graded coursework, and three (3) semester hours of ME 6960 - Non-Thesis Project. At least seventy percent of the credit to be counted toward the MS degree (21 hours) must be at the 6000 level or above. The Non-Thesis project course will demonstrate the student's capability to engage in independent learning. The content and format of the special topics course, including the comprehensive examination, will be entirely at the discretion of the student's advisory committee. Typically the special topics course will be taken in the final semester listed on the program of study.

- Advisor Approved Electives\*: 30 hours
- Non-Thesis Project, ME 6960: 3 hours
- Total Degree Requirements: 33 hours

\*Selection of appropriate courses (ME, ECE, CSC, MATH 5000, 6000, 7000 level) will be made in consultation with the student's advisory committee and/or the graduate coordinator.

# **Department of Mechanical Engineering Information**

### **Departmental Overview**

The Mechanical Engineering Department offers courses and research projects leading to the Master of Science Degree in Mechanical Engineering and enthusiastically participates in the Doctor of Philosophy Degree offered in the College for those doctoral students focusing their work in the mechanical engineering

area. The MS program is administered by the Department and the Ph.D. program is administered by the Associate Dean of Engineering for Graduate Studies and Research. Both degrees are research-oriented.

Participation in graduate education is consistent with the Mechanical Engineering Department's goals and objectives which are:

- to provide quality instructional programs and research experiences in mechanical engineering subjects that are at a level of sophistication compatible with professional norms;
- to maintain a competent, dynamic faculty, expert in the various facets of mechanical engineering that strive to motivate the student and that practices effective educational techniques;
- and to provide instructional and research facilities, equipped with up-to-date apparatus, which are conducive to the education of mechanical engineering graduate students.

A graduate student may customize his/her graduate courses in one of several areas subject to the approval of his/her graduate advisory committee. Areas of specialty include energy systems (including alternate and renewable), robotics and intelligent systems, solid mechanics and materials, thermal fluid science, vehicle systems (including hybrid and autonomous), vibrations/acoustics/dynamics and control, and advanced manufacturing. Graduate course offerings are offered each semester to meet the needs of the graduate students may carry out their research for their thesis/dissertation in any one of the aforementioned areas under the supervision of a faculty member, having expertise in that area, who is also a member of the graduate faculty. Individual programs of study are developed for each student depending on his/her career goals and thesis research interest. Thesis, non-thesis and on-line non-thesis programs are offered to meet the needs of our students.

Faculty advisors assist graduate students in the development of their individual programs of study depending on their career goals and thesis/dissertation interests. The advisor chairs the student's advisory committee. The student's advisory committee guides the student through degree progression and is responsible for monitoring the student's work to complete the degree requirement.

The research and graduate education within the College are enhanced by four Centers of Excellence: the Center for Energy Systems Research (CESR); the Center for Manufacturing Research (CMR); Cybersecurity Education, Research and Outreach Center (CEROC); and the Center for the Management, Utilization, and Protection of Water Resources (WC). The Mechanical Engineering Department is highly involved with the first two. Faculty actively interact with the Power and Manufacturing Centers in seeking external funding for research. The Centers complement the faculty efforts by supporting graduate students and via administrative support. The interaction involves a strengthening through sharing of resources and personnel.

# **Mechanical Engineering Program Information**

- Departmental Admissions Requirements
- Fast Track M.S. Program
- Degree Options

### **Departmental Admissions Requirements**

### Master's Degree

An applicant for admission to the MS in Mechanical Engineering is expected to have earned a BS degree from an approved program, or its equivalent. Admission is decided based on a multi-parameter criterion that can include the following items to be evaluated by the department:

• undergraduate GPA of at least 3.0 on a 4.0 scale,

- GRE® General Test (GRE) scores with Quantitative greater than or equal to 50%; Verbal greater than or equal to 33%; Analytical Writing greater than or equal to 33%. Students with BS degrees in related fields from TTU are not required to take the GRE.
- Three (3) letters of recommendation that demonstrate strong evidence for success in the graduate program.
- Availability of appropriate faculty to serve as research advisor(s).
- Participation in undergraduate research.
- Post-BS degree professional experience relevant to planned degree of study.
- Publications in peer reviewed journals and/or award-winning presentations in technical conferences.
- International students must score at least 550 (213 computer-based or 79 internet-based) on the TOEFL or a minimum base score of 6.0 on the IELTS.

Based on the level of satisfaction of the above criterion, the department will either recommend admission to Full Standing, Provisional Standing, or Special Standing, or deny admission. Standing status may be changed to Full Standing after the student satisfies the requirements specified by the department at the time of admission.

The ME Department has a Departmental Admissions Committee who reviews and evaluates each application individually for unique merits and for the applicant's potential success in the graduate program and makes admission recommendation to the appropriate administrator. Students who do not meet the minimum admission requirements or whose potential for success is not evident from the application may be considered for provisional standing. These students will be reclassified to full standing once they satisfy the conditions specified in the provisional admission statement. Occasionally, highly qualified students not having their BS degree in mechanical engineering may be admitted on a provisional basis with the stipulation of satisfactorily completing a specified set of undergraduate courses before achieving full standing. If admitted in provisional standing at master's level, the student must remove all deficiencies and apply for reclassification to full standing prior to the completion of 15 graduate hours.

### **Doctor of Philosophy Degree**

The basic admission standards for the Ph.D. program are the same as for the MS programs, except that, additionally, an applicant is expected to have completed an MS degree in an academic area appropriate to the proposed area of study and to have earned an MS GPA of at least 3.5 on a 4.0 scale.

Though the general requirement for admission to the Ph.D. program is a master's degree in an appropriate discipline, students with a bachelor's degree may be admitted to the Ph.D. program directly on exceptional basis, provided the applicant has a record of excellent academic performance in an appropriate engineering program undergraduate program. The applicant's test scores, personal recommendations, and relevant work experience must indicate a high potential for success in doctoral studies and research. In addition, factors such as appropriateness of the applicant's research objectives to the research interests of the program faculty, availability of faculty to supervise the applicant's research, and prior research accomplishments of the applicant will also influence the admission decision.

Fulfilling the minimum requirement does not guarantee admission; an applicant who does not meet the above minimum, but appears to have reasonable potential for success as a Ph.D. student, may be admitted to provisional standing. His/her status may be changed to full standing after satisfying requirements specified by the Associate Dean of Engineering for Graduate Studies and Research, in consultation with the appropriate departmental chairperson, at the time of admission.

If admitted in provisional standing at either the MS or Ph.D. level, the student must remove all deficiencies and apply for reclassification to full standing prior to the completion of 15 graduate hours.

### Fast Track M.S. Program

The Fast Track program is designed to enable TTU ME undergraduates to accumulate up to six (6) credit hours of graduate coursework while still pursuing their undergraduate degree and to transition to the graduate program smoothly, with accelerated completion. Up to six (6) hours of graduate coursework, exclusive of directed study, taken during the student's senior year can be used to satisfy both undergraduate and graduate degree requirements ("double counted"). These courses must be taken at Tennessee Tech University and must be approved as appropriate substitutions in the undergraduate curriculum for senior ME electives (AOE courses). There is no obligation to complete the master's degree if the student's plans change. Students who plan to work on a master's thesis are strongly encouraged to meet with faculty during their junior and senior year to get a head start on the research for their master's degree.

### **Requirements to Apply**

- Student must be an ME undergraduate student in their junior or senior year.
- Student must have obtained a grade point average (GPA) of 3.25 or higher for all undergraduate courses.
- Meeting the minimum requirements does not guarantee admission to the BS/MS graduate program. To receive full consideration, all applications to the BS/MS program should be received two weeks before the start of the registration period.

### **Program Rules and Requirements**

To maintain eligibility for the BS/MS program after being accepted, students must:

- Maintain a 3.25 GPA or higher (ME courses) at the undergraduate level. Students who graduate with their BS degree with less than a 3.25 GPA will not be eligible for the BS/MS program.
- Students must complete their BS degree, and then matriculate into the MS program. Students cannot graduate with a BS and MS at the same time.
- Start in the MS program immediately after graduating with their BS degree. The only exception to this is summer semester. Students who graduate in the spring are allowed to take summer semester off and start in the fall semester.

٠

### **Degree Options**

### Master's Program

There are two options to consider:

- Thesis option
  - This option requires 30 credit hours, which includes 22-24 credit hours of course work and 6-8 credit hours of thesis research.
  - Funding from the ME Department may be available through the department in the form of Graduate Teaching Assistantships (GTA). Graduate Research Assistantships (GRA) are awarded by individual faculty from their research grants/contracts.
  - The time it takes to complete the M.S. degree depends on the thesis project, the advisor, and the student's motivation and work ethic.
- Non-thesis option
  - This option requires 33 credit hours, which includes 30 hours of course work and 3 hours for the independent project course.
  - There is no funding available through the department for this option.

• With proper planning, well-motivated students can complete the M.S. non-thesis degree in three semesters.

### Doctor of Philosophy in Engineering Program

The Ph.D. is a research degree. The minimum requirements for a Ph.D. degree in Engineering are the same for all departments. Each department may include additional stricter degree requirements for students pursuing specialization in that department.

### Students Admitted with a Master's Degree

1. A minimum of 48 credits of course work and doctoral research and dissertation as follows:

A minimum of 18 semester credits of course work beyond the master's degree, including 6 semester credits of 7000-level course work acceptable to the student's advisory committee. Additional six semester credits of either graduate level course work or research experience as per the policy of the department. No 5000-level courses are to be used to meet the minimum requirements of course work. The research experience may include any of the following activities.

- ME 7980: Directed Study on selected topics
- ME 7980: Pre-approved research activity (or experience) at a research institute or laboratory
- ME 7980: Conducting a pre-approved industrial project/research
- ME 7980: Research leading to author or co-author a paper for submission to journal or professional conference on subjects not covered in the dissertation
- ME 7980: Writing a research proposal for submission to a (federal funding agency or its equivalent)
- Other research activities approved by the advisory committee.
- The equivalent of 24 semester credits of doctoral research and dissertation built upon the student's course of study and making a significant contribution to the state of knowledge or to the art of the engineering profession is required; not more than 9 credits may be earned in a particular semester.
- 3. Residence of four (4) semesters beyond the master's degree, with at least two semesters in continuous residence, is required. All requirements, including the dissertation, must be completed within a period of eight consecutive years.
- 4. Maintenance of a minimum quality point average of 3.0 and adherence to the general regulations of the Graduate School are expected.
- 5. All students in the program must follow a plan of study and research developed in conjunction with an advisory committee, satisfactorily complete a comprehensive examination, achieve candidacy, and satisfactorily defend the dissertation.

### Students Admitted Directly from the Bachelor's Degree

The program of study should have a minimum total of 72 semester credit hours of academic work, consisting of course work and dissertation work, beyond baccalaureate work, subject to the following:

- 1. The program of study should include a minimum of 42 semester credits of appropriate graduate level course work consisting of a minimum of 6 semester credits at the 7000-level and a maximum of 9 semester credits at the 5000-level, acceptable to the student's advisory committee.
- 2. It should also include an additional 6 semester credits of either graduate level course work or research experience as per the policy of the ME department described above.
- 3. A minimum of 24 semester credit hours of doctoral research and dissertation, built upon the student's course of study and making significant contribution to the state of knowledge and the art

of the engineering profession, is required; no more than nine credit hours may be earned in a particular semester.

4. The other requirements, such as residency, grade point average, comprehensive exam, and dissertation are the same as those for students admitted with a master's degree, as described in the catalog.

# **College of Fine Arts**

# **College of Fine Arts**

Jennifer Shank, Ph.D., Dean

No graduate degree programs are offered from the College of Fine Arts.

### Department and Program Information

### **Department of Music**

Departmental Graduate Faculty: Wei Tsun Chang, Jeremy Hansen, Eric Harris, Colin Hill, Chris McCormick, Jeff Miller, R. Winston Morris, Marco Shirripa, Judith Sullivan, Jennifer Shank, Craig Zamer,

No degree is offered in Music but courses may be used (with advisory committee approval) as electives in other fields of study.

# Department of Art, Craft & Design

Kimberly Winkle, Director

#### **Departmental Graduate Faculty:**

No degree is offered in Art but courses may be used (with advisory committee approval) as electives in other fields of study.

# **Department of Art**

### **Department of Art, Craft & Design**

Kimberly Winkle, Director

#### **Departmental Graduate Faculty:**

No degree is offered in Art but courses may be used (with advisory committee approval) as electives in other fields of study.

# **Department of Music**

### **Department of Music**

Departmental Graduate Faculty: Wei Tsun Chang, Jeremy Hansen, Eric Harris, Colin Hill, Chris McCormick, Jeff Miller, R. Winston Morris, Marco Shirripa, Judith Sullivan, Jennifer Shank, Craig Zamer,

No degree is offered in Music but courses may be used (with advisory committee approval) as electives in other fields of study.

# **School of Professional Studies**

# **Professional Studies, M.P.S.**

#### Professional Studies, M.P.S.

The Master of Professional Studies (MPS) is designed to affordably and flexibly meet the needs of working adults who are not generally served by traditional methods. This unique program is taught by professors who are best suited to help you develop the skills necessary to excel in your career field and this program is offered completely online and available 24/7.

Master of Professional Studies Website

# **OVERVIEW**

The Master of Professional Studies (MPS) – This graduate professional studies degree consists of 30 hours of interdisciplinary coursework. This degree is available in several concentration areas and offers students the chance to complete a graduate certificate within each of the concentration areas:

**Healthcare Administration**—provides the healthcare professional with leadership and strategic management tools to lead and serve one of the nation's largest service industries. The focus of the program is to provide the healthcare professional with the opportunity to develop important skills in healthcare, leadership, finance, informatics, research and administration in the various components of healthcare delivery systems that include hospitals, nursing homes, group medical practices, personal care homes, retirement centers, health maintenance organizations, medical sales, and insurance companies. A graduate certificate is available in Healthcare Informatics for the Healthcare Administration students.

**Human Resources Leadership**—prepares you for a leadership role in the area of human resources. The interdisciplinary approach is appropriate because of the many skills and knowledge areas that are needed for success in this field.

**Public Safety**—provides the public safety professional with leadership and strategic management tools to lead and serve in one of the nations growing professions.

**Strategic Leadership**—prepares you to lead in today's rapidly changing professional environment. The interdisciplinary approach focuses on the areas of leadership, communication, strategic planning and assessment, organizational structure and research/data analysis.

**Teaching English to Speakers of Other Languages (TESOL)**—prepares you to meet an ongoing demand for both initial preparation and continuing education for individuals who plan to teach or a currently teaching English as a second/foreign language in various educational settings.

**Training and Development**—equips leaders for the growing and evolving field of workplace learning and performance. The program will prepare you to manage, deliver and assess on-site performance-based training, instructional design, and address the needs of human resource managers and other professionals who are increasingly relying on technology to deliver workforce education.

**Corporate Communication** - prepares you to excel in the fast-paced professional environment that surrounds the communication field. This program strengthens the corporate leader in developing organizational and interpersonal communication skills and leadership skills.

**Media and Strategic Communication** - prepares you to lead in the exciting field are of media and communication. The professional will acquire skills in the area of event planning and promotion, public relations, marketing, and other key communication areas.

In addition, the MPS program offers a 15 hour Graduate Certificate within each concentration area allowing students to achieve an additional milestone en route to their degree.

# ADMISSION REQUIREMENTS

For Full Standing:

The minimum admission requirements are:

- 1. A bachelor's degree from an accredited institution
- 2. Satisfactory undergraduate grade point average, a minimum of 2.5 on a 4.0 scale

And, applicants must meet one of the following conditions:

- 1. 3.0 grade point average in their undergraduate major course of study
- 2. A score of 146 on the verbal portion of the GRE® General Test (GRE) and 144 quantitative portion.

3. A combined score of 290 on the verbal and quantitative reasoning sections and a 3.5 on analytical writing.

4. Five (5) or more years of professional work experience demonstrated through a portfolio. The portfolio is to include:

- a resume;
- 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
- two (2) sealed letters of professional reference.
- Other items that an applicant may include in the portfolio include a description of professional responsibilities, professional achievements and professional awards/recognition's. The portfolio material must be submitted as a packet, not mailed separately.

International students must meet English language proficiency requirements by providing a TOEFL score. Minimum IBT of 71 or an approved equivalent exam and equivalent scores. International applicants with an IBT below 79 must complete 6 hours of grammar/reading/communication course work. The 6 hours are in addition to the 30 hours required for the Master's degree.

Satisfying minimal standards, however, does not guarantee your admission. Admission decisions are based on departmental review, using a combination of factors including an interview to evaluate dispositions for professionals in the chosen concentration.

Students may be admitted with provisional status if they do not meet all of the criteria above but do meet the minimum requirements of the graduate school and are approved for provisional status by the departmental admissions committee. Provisional status will limit students to a maximum of 9 hours before the departmental admissions committee makes a recommendation for full admission. To advance from provisional to full admission a student must earn a 3.0 GPA on the 9 hours of graduate study in the concentration and be approved by the departmental admissions committee.

Note: All international students who attend TTU, who are enrolled on the Department of Homeland Securities F-1 or J-1 visa status must complete all midterm and final exams in a proctored setting on the Tennessee Tech University campus in Cookeville, TN.

#### MPS Fast-track Program Admissions:

The MPS Fast-track program will allow eligible undergraduates to enroll for up to six (6) hours of graduate courses prior to formal admission to the MPS program. The courses will be taken during the student's junior/senior year and can be used to satisfy both undergraduate and graduate degree requirements. Participation does not change requirements for either the undergraduate or graduate programs of study. The MPS Fast-track program applies to all MPS concentrations.

Once admitted to the MPS Fast-track program, the student will be allowed to enroll in appropriate graduate courses in the junior or senior year with the consent of the student's undergraduate advisor and the Director of the MPS program. Courses completed at the Graduate Level are only guaranteed to apply to the completion of the MPS graduate degree program. The student must earn a minimum grade of "B" in the graduate courses in order to apply them to the MPS program of study and to continue in the Fast-track program. The MPS Fast-track program is open to all undergraduate majors whom meet the following admissions requirements:

- Fast-track applicant must be earning a baccalaureate degree at TTU and completed at least 90 hours of credit;
- Overall undergraduate GPA of 3.0 or better;
- GPA of 3.25 in undergraduate major;
- Recommendation from the student's undergraduate advisor

Note: in addition to the requirements for admission to the MPS Fast-track program, all requirements for admission to the graduate program must also be met upon graduation. Meeting these minimum requirements does not guarantee admission to the graduate program.

#### Full Time Status Defined for Accelerated Courses

For a graduate student to be considered full-time they must be enrolled in nine credit hours for the semester (excluding Graduate Assistants who may enroll in 6 hours). The Public Safety program includes an accelerated course schedule with classes available in five and seven week formats, thus the combination of the accelerated courses over the entire semester should equal nine credit hours for a student to be considered full-time.

#### **Graduate Certificates**

Students seeking a Graduate Certificate will go through the graduate application process as if they were seeking an MPS degree, meeting all admissions requirements as set forth in the degree program. Once admitted, students are considered MPS degree seeking students and will be working towards completing the pre-defined coursework (15 hours) as listed in this catalog. Upon completion of the 15 hours defined in the program, the student will receive a Graduate Certificate in the appropriate field of study. After completion of the 15 hours Graduate Certificate, the student may continue to fulfill the requirements of the MPS degree. Students are required to meet all graduate student requirements that include maintaining their GPA at the 3.0 level.

### Degree Requirements

The Master of Professional Studies degree is a 30 hour program and is summarized as follows:

M.P.S. Degree Requirements	
Requirement	Credit Hours
Required Core Courses	12
Required Concentration Courses (all concentrations EXCEPT Corporate Communication and Media and Strategic Communication which require 18 hours of concentration courses)	15
Advisor Guided Elective (EXCEPT Corporate Communication and Media and Strategic Communication concentrations which require no elective hours)	3
Total Degree Requirement	30

### Strategic Leadership Concentration in MPS

Required Major Field Core (12 hours)

- PRST 6100 Professional Environment: Issues and Ethics Cr. 3.
- PRST 6110 Leadership and Communication Cr. 3.
- PRST 6300 Research Methods Cr. 3.
- PRST 6998 Professional Project Cr. 3.

### Strategic Leadership Concentration (15 hours)

- PRST 6105 Project Planning and Scheduling Cr. 3.
- PRST 6310 Leadership in Organization Cr. 3.
- PRST 6500 Foundations of Leadership Cr. 3.
- PRST 6600 Statistical Analysis Cr. 3.
- PRST 6700 Conflict Management and Negotiation Cr. 3.

# Optional Electives (3 hours)

- PRST 6040 Human Resources Management Cr. 3.
- PRST 6200 Globalization and the Professions Cr. 3.
- PRST 6770 Computer-Based Decision Modeling Cr. 3.
- PRST 6800 Organizational Skills and Development Cr. 3.
- ELPA 6560 Small Group Leadership Cr. 3.
- JOUR 6450 Public Relations Management Cr. 3.
- LDSP 6000 Current Issues and Cases in Leadership Cr. 3.
- PRST 6790-6799 Special Topics Cr. 3.

### Human Resources Leadership Concentration in MPS

### Required Major Field Core (12 hours)

- PRST 6100 Professional Environment: Issues and Ethics Cr. 3.
- PRST 6110 Leadership and Communication Cr. 3.
- PRST 6300 Research Methods Cr. 3.
- PRST 6998 Professional Project Cr. 3.

### Human Resources Leadership Concentration Courses (15 hours)

- PRST 6040 Human Resources Management Cr. 3.
- PRST 6600 Statistical Analysis Cr. 3.
- PRST 6700 Conflict Management and Negotiation Cr. 3.
- PRST 6910 Employment and Human Resources Law Cr. 3.
- PRST 6920 Diversity in the Workplace Cr. 3.

# Optional Electives (3 hours)

- PRST 6200 Globalization and the Professions Cr. 3.
- PRST 6310 Leadership in Organization Cr. 3.
- PRST 6500 Foundations of Leadership Cr. 3.
- PRST 6940 Recruitment, Selection, and Retention Cr. 3.
- PRST 6790-6799 Special Topics Cr. 3.

### Training and Development Concentration in MPS

### Required Major Field Core (12 hours)

- PRST 6100 Professional Environment: Issues and Ethics Cr. 3.
- PRST 6110 Leadership and Communication Cr. 3.
- PRST 6300 Research Methods Cr. 3.
- PRST 6998 Professional Project Cr. 3.

# Concentration classes (15 hours)

- PRST 6105 Project Planning and Scheduling Cr. 3.
- PRST 6400 Instructional Design for Training and Development Cr. 3.
- PRST 6410 Evaluation of Learning Cr. 3.
- PRST 6470 Facilitation of Learning Cr. 3.
- PRST 6600 Statistical Analysis Cr. 3.

# Optional Electives (3 hours)

- PRST 6040 Human Resources Management Cr. 3.
- PRST 6200 Globalization and the Professions Cr. 3.
- PRST 6430 Instructional Design for Electronic Training Cr. 3.
- PRST 6440 Teaching Online Cr. 3.
- PRST 6450 Computer-based Instruction Cr. 3.
- PRST 6770 Computer-Based Decision Modeling Cr. 3.
- PRST 6910 Employment and Human Resources Law Cr. 3.
- PRST 6920 Diversity in the Workplace Cr. 3.
- PRST 6790-6799 Special Topics Cr. 3.

### Healthcare Administration Concentration in MPS

### Required Major Field Core (12 hours)

- PRST 6100 Professional Environment: Issues and Ethics Cr. 3.
- PRST 6110 Leadership and Communication Cr. 3.
- PRST 6300 Research Methods Cr. 3.
- PRST 6998 Professional Project Cr. 3.

# Healthcare Administration Concentration (15 hours)

- PRST 6530 Healthcare Systems Economics Cr. 3.
- PRST 6540 Health Informatics Cr. 3.
- PRST 6550 Computer Based Decision Modeling for Healthcare Administrators Cr. 3.
- PRST 6560 Biological Sciences for Healthcare Administrators Cr. 3.
- PRST 6570 Public Health Cr. 3.

# **Optional Electives (3 hours)**

- PRST 6200 Globalization and the Professions Cr. 3.
- PRST 6600 Statistical Analysis Cr. 3.
- PRST 6810 Internship Cr. 3.
- PRST 6790-6799 Special Topics Cr. 3.

### Public Safety Concentration in MPS

# Required Major Field Core (12 hours)

- PRST 6100 Professional Environment: Issues and Ethics Cr. 3.
- PRST 6110 Leadership and Communication Cr. 3.
- PRST 6300 Research Methods Cr. 3.
- PRST 6998 Professional Project Cr. 3.

# Public Safety Concentration (15 hours)

- PRST 6710 Risk Assessment & Preventiion Cr. 3.
- PRST 6720 Crisis Response Management Cr. 3.
- PRST 6730 Leadership in Public Safety Cr. 3.
- PRST 6750 Preparedness and Mitigation Cr. 3.
- PRST 6780 Intelligence Gathering Cr. 3.

# **Optional Electives (3 hours)**

- PRST 6200 Globalization and the Professions Cr. 3.
- PRST 6740 Diversity in Public Safety Cr. 3.
- PRST 6760 Funding in Public Safety Cr. 3.
- PRST 6790-6799 Special Topics Cr. 3.

### Teaching English to Speakers of Other Languages (TESOL) concentration in MPS

### Required Major Field Core (12 hours)

- PRST 6100 Professional Environment: Issues and Ethics Cr. 3.
- PRST 6200 Globalization and the Professions Cr. 3.
- PRST 6300 Research Methods Cr. 3.
- PRST 6998 Professional Project Cr. 3.

# TESOL Concentration (15 hours)

- CUED 6450 Immersive Technologies for Teaching and Learning Cr. 3.
- CUED 6920 Topics Cr. 1-6.
- CUED 6440 Emerging Technologies in Education Cr. 3.
- ESLP 4200 (5200) ESL Assessment: Reading and Writing Cr. 3.
- PRST 6810 Internship Cr. 3.
- ENGL 4531 (5531) Grammar and Language Cr. 3.
- ENGL 4511 (5511) Introduction to Descriptive Linguistics Cr. 3. TNeCampus courses (TEAE 6020, TEAE 5500, TEAE 6501) may be used in place of TTU concentration courses.

### TESOL Electives (3 hours)

- PRST 6330 International Issues in Education Policy and Practice Cr. 3.
- CUED 7100 Improvement in Teaching Cr. 3.
- SOC 4990 (5990) Special Topics Cr. 1-3.
- PRST 6790-6799 Special Topics Cr. 3.

### **Corporate Communication Concentration in M.P.S.**

The MPS in Corporate Communication prepares the professional to excel in the field of corporate communication. This concentration provides a fous on the areas of communication including organizational and interpersonal communication and leadership.

# Required Major Field Core (12 hours)

PRST 6100 Professional Environment: Issues and Ethics, 3 credit hours

PRST 6110 or COMM 6110 Leadership and Communication, 3 credit hours

PRST 6300 Research Methods, 3 credit hours

PRST 6998 or COMM 6998 or JOUR 6998, Professional Project, 3 credit hours

# Concentration Courses (choose 18 hours)

Choose at least six courses from the following concentration course listing:

COMM 5420 Advanced Organizational Communication, 3 credit hours

COMM 4430 (5430) Interpersonal Communication, 3 credit hours

COMM 4620 (5620) Advanced Public Speaking, 3 credit hours

COMM 4630 (5630) Persuasion, 3 credit hours

COMM 5601, 5602, 5603, Special Topics in Communication Studies, 3 credit hours

COMM 6700 or PRST 6700 Conflict Management and Negotiation, 3 credit hours

- PRST 6200 Globalization and the Professions, 3 credit hours
- PRST 6310 Leadership in Organizations, 3 credit hours
- PRST 6570 Public Health, 3 credit hours
- PRST 6600 Statistical Analysis, 3 credit hours
- PRST 6720 Crisis Response Management, 3 credit hours
- PRST 6710 Risk Assessment and Prevention, 3 credit hours

#### Media and Strategic Communication

The Media and Strategic Communication concentration prepares you to lead in the exciting areas of event planning and programming, public relations, marketing and other strategic areas.

# Concentration Required Courses (12 credit hours)

PRST 6100 Professional Environment: Issues and Ethics, 3 credit hours

COMM 6110 or PRST 6110 Leadership and Communication, 3 credit hours

PRST 6300 Research Methods, 3 credit hours

COMM 6998 or JOUR 6998 or PRST 6998 Professional Project, 3 credit hours

# Concentration Courses (18 credit hours)

- COMM 4630 (5630) Persuasion, 3 credit hours
- COMM 4030 (5030) JOUR 5030 Field Experience in Event Planning and Promotion, 3 credit hours
- JOUR 4460 (5460) Public Relations Cases and Practices, 3 credit hours
- JOUR 4500 (5500) Advanced Multimedia Storytelling, 3 credit hours
- JOUR 4820 (5820) Advanced Reporting, 3 credit hours
- JOUR 4830 (5830) Feature Writing, 3 credit hours
- JOUR 4840 (5840) 5846, 5849, Special Problems, 3 credit hours
- JOUR 4930 (5930) Advanced Copy Editing, 3 credit hours
- MKT 6100 Strategic Marketing, 3 credit hours
- MKT 6500 Advanced Marketing Analysis, 3 credit hours
- JOUR 6450 Public Relations Management 3 credit hours
- PRST 6570 Public Health, 3 credit hours
- PRST 6600 Statistical Analysis, 3 credit hours
- PRST 6720 Crisis Response Management, 3 credit hours
- PRST 6710 Risk Assessment and Prevention, 3 credit hours

### Course Substitutions

Course Substitutions are allowed upon approval of the graduate advisory committee, department chair/director, and dean of the college.

# **Professional Studies Program Information**

- Overview
- Admission Requirements

- MPS Fast-track Program Admissions
- Full Time Status Defined for Accelerated Courses
- Graduate Certificates
- Degree Requirements

The Master of Professional Studies (MPS) is designed to affordably and flexibly meet the needs of working adults who are not generally served by traditional methods. This unique program is taught by professors who are best suited to help you develop the skills necessary to excel in your career field and this program is offered completely online and available 24/7.

Master of Professional Studies Website

#### <u>Overview</u>

The Master of Professional Studies (MPS) – This graduate professional studies degree consists of 30 hours of interdisciplinary coursework. This degree is available in several concentration areas and offers students the chance to complete a graduate certificate within each of the concentration areas: Healthcare Administration—provides the healthcare professional with leadership and strategic management tools to lead and serve one of the nation's largest service industries. The focus of the program is to provide the healthcare professional with the opportunity to develop important skills in healthcare, leadership, finance, informatics, research and administration in the various components of healthcare delivery systems that include hospitals, nursing homes, group medical practices, personal care homes, retirement centers, health maintenance organizations, medical sales, and insurance companies. A graduate certificate is available in Healthcare Informatics for the Healthcare Administration students.

**Human Resources Leadership** — prepares you for a leadership role in the area of human resources. The interdisciplinary approach is appropriate because of the many skills and knowledge areas that are needed for success in this field.

**Public Safety** — provides the public safety professional with leadership and strategic management tools to lead and serve in one of the nations growing professions.

**Strategic Leadership** — prepares you to lead in today's rapidly changing professional environment. The interdisciplinary approach focuses on the areas of leadership, communication, strategic planning and assessment, organizational structure and research/data analysis.

**Teaching English to Speakers of Other Languages (TESOL)** — prepares you to meet an ongoing demand for both initial preparation and continuing education for individuals who plan to teach or a currently teaching English as a second/foreign language in various educational settings.

**Training and Development** — equips leaders for the growing and evolving field of workplace learning and performance. The program will prepare you to manage, deliver and assess on-site performance-based training, instructional design, and address the needs of human resource managers and other professionals who are increasingly relying on technology to deliver workforce education.

**Corporate Communication** — prepares you to excel in the fast-paced professional environment that surrounds the communication field. This program strengthens the corporate leader in developing organizational and interpersonal communication skills and leadership skills.

**Media and Strategic Communication** — prepares you to lead in the exciting field are of media and communication. The professional will acquire skills in the area of event planning and promotion, public relations, marketing, and other key communication areas.

In addition, the MPS program offers a 15 hour Graduate Certificate within each concentration area allowing students to achieve an additional milestone en route to their degree.

### Admission Requirements

#### For Full Standing

The minimum admission requirements are:

- 1. A bachelor's degree from an accredited institution
- 2. Satisfactory undergraduate grade point average, a minimum of 2.5 on a 4.0 scale

And, applicants must meet **one** of the following conditions:

- 1. 3.0 grade point average in their undergraduate major course of study
- 2. A score of 146 on the verbal portion of the GRE® General Test (GRE) and 144 quantitative portion.
- 3. A combined score of 290 on the verbal and quantitative reasoning sections and a 3.5 on analytical writing.
- 4. Five (5) or more years of professional work experience demonstrated through a portfolio. The portfolio is to include:
  - a resume;
  - 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
  - two (2) sealed letters of professional reference.
  - Other items that an applicant may include in the portfolio include a description of professional responsibilities, professional achievements and professional awards/recognition's. The portfolio material must be submitted as a packet, not mailed separately.

International students must meet English language proficiency requirements by providing a TOEFL score. Minimum IBT of 71 or an approved equivalent exam and equivalent scores. International applicants with an IBT below 79 must complete 6 hours of grammar/reading/communication course work. The 6 hours are in addition to the 30 hours required for the Master's degree.

Satisfying minimal standards, however, does not guarantee your admission. Admission decisions are based on departmental review, using a combination of factors including an interview to evaluate dispositions for professionals in the chosen concentration.

Students may be admitted with provisional status if they do not meet all of the criteria above but do meet the minimum requirements of the graduate school and are approved for provisional status by the departmental admissions committee. Provisional status will limit students to a maximum of 9 hours before the departmental admissions committee makes a recommendation for full admission. To advance from provisional to full admission a student must earn a 3.0 GPA on the 9 hours of graduate study in the concentration and be approved by the departmental admissions committee.

Note: All international students who attend TTU, who are enrolled on the Department of Homeland Securities F-1 or J-1 visa status must complete all midterm and final exams in a proctored setting on the Tennessee Tech University campus in Cookeville, TN.

### MPS Fast-track Program Admissions

The MPS Fast-track program will allow eligible undergraduates to enroll for up to six (6) hours of graduate courses prior to formal admission to the MPS program. The courses will be taken during the student's junior/senior year and can be used to satisfy both undergraduate and graduate degree requirements. Participation does not change requirements for either the undergraduate or graduate programs of study. The MPS Fast-track program applies to all MPS concentrations.

Once admitted to the MPS Fast-track program, the student will be allowed to enroll in appropriate graduate courses in the junior or senior year with the consent of the student's undergraduate advisor and the Director of the MPS program. Courses completed at the Graduate Level are only guaranteed to apply to the completion of the MPS graduate degree program. The student must earn a minimum grade of "B" in the graduate courses in order to apply them to the MPS program of study and to continue in the Fast-track program. The MPS Fast-track program is open to all undergraduate majors whom meet the following admissions requirements:

- Fast-track applicant must be earning a baccalaureate degree at TTU and completed at least 90 hours of credit;
- Overall undergraduate GPA of 3.0 or better;
- GPA of 3.25 in undergraduate major;
- Recommendation from the student's undergraduate advisor

Note: in addition to the requirements for admission to the MPS Fast-track program, all requirements for admission to the graduate program must also be met upon graduation. Meeting these minimum requirements does not guarantee admission to the graduate program.

### Full Time Status Defined for Accelerated Courses

For a graduate student to be considered full-time they must be enrolled in nine credit hours for the semester (excluding Graduate Assistants who may enroll in 6 hours). The Public Safety program includes an accelerated course schedule with classes available in five and seven week formats, thus the combination of the accelerated courses over the entire semester should equal nine credit hours for a student to be considered full-time.

### Graduate Certificates

Students seeking a Graduate Certificate will go through the graduate application process as if they were seeking an MPS degree, meeting all admissions requirements as set forth in the degree program. Once admitted, students are considered MPS degree seeking students and will be working towards completing the pre-defined coursework (15 hours) as listed in this catalog. Upon completion of the 15 hours defined in the program, the student will receive a Graduate Certificate in the appropriate field of study. After completion of the 15 hour Graduate Certificate, the student may continue to fulfill the requirements of the MPS degree. Students are required to meet all graduate student requirements that include maintaining their GPA at the 3.0 level.

# **School of Environmental Studies**

# School of Environmental Studies

School of Environmental Studies Information

Steven Sharp, Interim Director

Departmental Graduate Faculty: Tammy Boles, Hayden Mattingly, Steven Sharp, and Lauran Strum

# **School of Environmental Studies Information**

Environmental Sciences, Ph.D.

The Doctor of Philosophy degree program in Environmental Sciences offers concentrations in biology, chemistry, agriculture, geosciences, and integrated research but emphasizes the solution of complex environmental problems using an interdisciplinary approach. Course work is required in biology, chemistry, geology, agriculture, and sociology. This interdisciplinary approach insures that students become aware of a wide range of environmental concerns and that their research includes a breadth of environmental understanding beyond the boundaries of a particular discipline. The goal of the program is to prepare students for careers in research, management, government service, teaching, and other areas where they can make productive contributions to the solution of environmental problems.

The program of study for a doctoral degree requires a minimum of 61 semester credits beyond the bachelor's level, including 13 credits in "core courses," 12 credits at the 7000 level, and at least 18 credits in doctoral research and dissertation. Graduate assistantships are available.

### Professional Science Master's, P.S.M.

The Professional Science Master's (PSM) degree is a unique professional degree grounded in natural science, technology, engineering, mathematics and/or computational sciences and is designed to prepare students for direct entry into a variety of career options in industry, business, government, or non-profit organizations. It is a distinctive advanced degree for those intending to pursue a career in the practice of science. PSM programs prepare graduates for high-level careers in science that have a strong emphasis on such skill areas as management, policy, and entrepreneurship. PSM recognition provides assurance that the program conforms to nationally accepted criteria.

# **Environmental Sciences Program Information**

### Admission Requirements

Applicants who do not fully meet the following requirements may be admitted in Provisional Standing on the basis of a favorable recommendation to the Associate Dean of Graduate Studies by the appropriate departmental chairperson and the Director of the Environmental Sciences doctoral program. If admitted in Provisional Standing, the student must remove all deficiencies and apply for reclassification to Full Standing prior to the completion of 15 hours of graduate work.

Application materials may be obtained from the Graduate School Office.

Applicants for admission to the doctoral program in Environmental Sciences must have:

- a bachelor's or master's degree in science, mathematics, engineering, or environmental science;
- a grade point average of 3.0 or above on a 4.0 scale;
- international students must have a score of 525 or above on the TOEFL;
- and GRE score of at least 300 (Quantitative + Verbal) and 3.5 (Analytical Writing) for students entering any concentration within the Environmental Sciences Ph.D. degree program.

Applicants seeking admission with Full Standing in the program must satisfy the departmental requirements.

### Guidelines for Committee and Comprehensive Exam

#### **Guidelines for Graduate Committee Composition**

The organization and appointment of advisory committees to supervise graduate study for the degree of Doctor of Philosophy in Environmental Sciences shall be the same, generally, as in the master's program, except that the advisory committee shall consist of at least five (5) members of the Graduate Faculty, plus

the Director of Environmental Sciences Ph.D. program who serves as an ex officio, nonvoting member. Three (3) members shall be from the student's area of concentration, either Biology or Chemistry. Two (2) members shall be from separate departments of the environmental science core outside the student's area of concentration. Changes in a Ph.D. advisory committee must adhere to all policies and procedures governing graduate study at the University, as contained in the Graduate Catalog and administered by the Director of Graduate Studies.

### **Guidelines for the Comprehensive Examination**

Prerequisites. Before requesting that his or her major professor schedule a Comprehensive Examination, a student must:

- have achieved Full Standing in the program
- completed approximately 80% of the course work in his/her Program of Study

#### Descriptions

The test will consist of written and/or oral portions. The student's advisory portion will consist of four (4) sections. Total time for each section should not exceed eight (8) hours. Three (3) sections will contain material from the student's area of concentration and one (1) section will integrate material from the Environmental Sciences Core Curriculum.

If an oral exam is to be included as part of the comprehensive exam it will be administered by the student's advisory committee within three (3) weeks of the successful completion of the written portion of the exam. A question will be included in the oral exam that tests the student's understanding of the interdisciplinary nature of Environmental Sciences.

If an oral exam is included as part of the comprehensive exam, both portions of the Comprehensive Examination will be completed during one (1) academic semester.

#### Results

Four-fifths of the voting members of the committee must agree that the student has successfully completed the comprehensive exam.

The student will be given one (1) additional opportunity to pass each portion of the Comprehensive Examination. Failure to pass either portion on the second try will result in the student's dismissal from the Ph.D. program.

A written evaluation of the student's performance on the Comprehensive Examination will be prepared by the student's advisory committee and kept on file in the office of the Director of the Environmental Sciences Ph.D. program.

#### **Time Constraints**

Successful completion of the Comprehensive Examination must be achieved in a timely fashion. The complete Comprehensive Examination must be scheduled and taken within a year following the completion of 80% of the course work in the student's Program of Study, including successful completion of all core courses. It shall be the student's responsibility, in consultation with his/her advisor, to schedule this examination at a date agreeable to the whole examining committee. The committee shall be given at least two (2) months advance notice of the Examination date in order to make preparations. Any second attempts to pass portions of the Comprehensive Examination must be scheduled in the subsequent (Fall/Spring) semester. Failure to follow these procedures shall result in the student's dismissal from the program. Any

appeal by the student for exceptions to this policy shall be made in writing and submitted to the Executive Committee of the Ph.D. program.

# EVS Biology Concentration Additional Admissions Requirement

- applicants must have a bachelor's or master's degree in a biological science
- a grade point average of 3.5 or above for the highest degree earned
- In addition, a graduate faculty member must have agreed to direct the student's doctoral program and financial support must have been identified for a stipend and for research needs.

# EVS Chemistry Concentration Additional Admissions Requirements

- applicants must have a bachelor's degree in chemistry that has been certified by the American Chemical Society or course work equivalent to this degree;
- applicants must have one (1) year each of general, organic, and physical chemistry;
- applicants must have one (1) semester of analytical and inorganic chemistry, one (1) semester of instrumental analysis.

Applicants who do not fully meet the above requirements may be admitted in Provisional Standing on the basis of a favorable recommendation to the Associate Dean of Graduate Studies by the appropriate departmental chairperson and the Director of the Environmental Sciences doctoral program. If admitted in Provisional Standing, the student must remove all deficiencies and apply for reclassification to Full Standing prior to the completion of 15 hours of graduate work.

# **Environmental Informatics Program Information**

- Admission Requirements
- Fast-Track in Environmental Informatics

Population growth, pollution, and limited natural resources, result in increasingly topical environmental issues. The Professional Science Master's with a concentration in Environmental Informatics degree program effectively prepares you for a career dedicated to sustaining Earth's resources for future generations.

Environmental Informatics combines existing courses in the Colleges of Business, Arts and Sciences, Agricultural and Human Sciences, and Engineering to effectively produce a new and essential degree. Currently, the business core courses are offered online and on campus through TTU's MBA program.

Environmental Informatics will also use an interdisciplinary approach of course delivery by incorporating faculty from the Colleges of Business, Arts and Sciences, and Engineering.

There are increasing numbers of career opportunities for professionals with this degree. Environmental scientists and technicians are required to meet increasing demands placed on companies as worldwide awareness of environmentalism increases. Statistics show many professionals in this field will soon be retiring, leaving space for the next generation of environmentalists.

The program is designed for graduates of approved natural resources undergraduate programs (e.g., environmental biology, environmental chemistry, environmental engineering, water resources engineering, geology, environmental agriculture, environmental management, etc.).

### Admission Requirements

- Undergraduate degree in science, technology, engineering, or mathematics discipline\* with GPA of at least 3.0 on a 4.0 scale; [OR] a total score of at least 300 on verbal and quantitative portions of the GRE® General Test along with a score of at least 3.5 score on the analytical writing portion of the test.
- Official transcripts from all previously-attended colleges or universities
- Three (3) letters of recommendation from faculty or supervisors familiar with the academic ability of the applicant.
- International applicants must also meet the English Language Requirement by providing test results on one (1) of the following:
  - o TOEFL -- 550 minimum (213 computer-based or 79 internet-based)
  - IELTS -- minimum base score of 6.0

\*Applicants that have baccalaureate degrees in a closely related field will be evaluated on a case-by-case basis and may be admitted to full standing upon completion of identified background courses.

### Fast-Track in Environmental Informatics

This will allow selected undergraduates to enroll for up to six (6) hours of graduate courses prior to formal admission to the P.S.M., Environmental Informatics program. The courses taken during the student's junior/senior year can be used to satisfy both undergraduate and graduate degree requirements. Participation does not change the requirements for either the undergraduate or graduate program in Environmental Informatics. Once admitted to this program, the student will be allowed to enroll in appropriate courses in the junior or senior year with the consent of the student's undergraduate advisor and the Director of the P.S.M. program. Courses completed at the Graduate Level are only guaranteed to apply to the completion of the P.S.M. Environmental Informatics program.

### Admission to Fast-Track

Minimum requirements for admission are:

- Applicant must be earning a baccalaureate degree in a related field, which will be evaluated on a case-by-case basis
- Recommendation of a faculty member in the student's major
- Overall GPA of 3.0
- Program participants should consult with their future P.S.M. advisor regarding appropriate graduate courses to take during their junior/senior year.
- The student must earn a minimum grade of "B" in the graduate courses in order to apply them to their P.S.M program of study.
- All requirements for full admission to Graduate School must be met upon undergraduate graduation. Students in the Fast-Track program must still apply for admission to the Graduate School and meeting Fast-Track requirements does not necessarily guarantee admission to the PSM-Environmental Informatics degree program.
- Students who do not succeed in their first graduate course (B grade or better) will be advised to withdraw from the Fast Track program and complete their B.S. degree in a normal manner.

Fulfilling the above minimum requirements does not guarantee acceptance into the Professional Science Master's, Environmental Informatics Fast Track program. Students who meet the above minimum requirements must consult with the College of Interdisciplinary Studies and the School of Environmental Studies for eligibility and acceptance.

# **School of Interdisciplinary Studies**

# **School of Interdisciplinary Studies**

### Steven Frye, Director

Currently the School of Interdisciplinary Studies is only offering undergraduate degree programs.

# Whitson-Hester School of Nursing

# Whitson-Hester School of Nursing

Kim Hanna, Dean

### Schools and Program Information

# **Doctor of Nursing Practice**

# Nursing - DNP (Joint Program with ETSU)

Nursing Program Information

### **Concentrations**

The following concentrations are available in the Nursing DNP degree program:

- Nursing, Adult-Gerontology Acute Care Nurse Practitioner Concentration, DNP (TTU-ETSU)
- Nursing, Nursing and Healthcare Leadership, DNP (TTU-ETSU)
- Nursing, Family Nurse Practitioner Concentration, DNP (TTU-ETSU)
- Nursing, Pediatric Nurse Practitioner-Primary Care Concentration, DNP (TTU-ETSU)
- Nursing, Psychiatric/Mental Health Nurse Practitioner Concentration, DNP (TTU-ETSU)
- Nursing, Women's Health Care Nurse Practitioner Concentration, DNP (TTU-ETSU)

# School of Nursing

- School of Nursing Information
- Kim Hanna, Dean

Departmental Graduate Faculty: Benjamin Aaron, Toni Barnett, Sharon Bigger, Keelyn Boles, Michael Boles, Dolores Bowman, Stacey Browning, Melissa Burgess, Keisha Butler, Heather Cathey, Shirleen D. Chase, Callie Crockett, Andrew Donadio, Jusy J. Duvall, Mary Lou C. Fornehed, Darlene Franklin, Melissa J. Geist, Retha Gentry, Loyd Lee Glenn, Danielle Goolsby, Sarah Guimaraes, Rachel Hall, Kimberly Joyce Hanna, Lynette Harvey, Ann Hellman, Amber R. Hensley, Shelia Hurley, Barbara Jared, Dawn Johnson, Amanda Jones, Matthew Langford, Emily Lee, Jennifer Mabry, Geeta Maharaj, Dru Michele Malcolm, Robyn Maxwell, Monica Means, Robin Mickelson, Alexander Moore, April Morrison, Becky Pickett, Susan Piras, S. Lee Ridner, Toni Roberts, Stacie Rothfus, Bedelia Russell, Robert Sarfo, Ramona Scott, Angel Cavanaugh Sharp, Jody Smith, Julia Smith, Sarah Smith, Tony Smith, Ashleigh Snow, Beth Thompson, Jordan Moore Vaughn, Rebecca Vaughn, Valerie White, Kathryn Wilhoit, Amanda Wright

# Master of Science in Nursing

# Nursing, Adult Geriatric Acute Care Nurse Practitioner Concentration (MSN)

The Adult Geriatric Acute Care Nurse Practitioner (ACAGNP) is a concentration in the Master of Science in Nursing (MSN) program.

### Core Courses (12 Credit Hours)

- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.

### Advance Practice Courses (10 Credit Hours)

- NURS 6101 Advanced Health Assessment Cr. 3.
- NURS 6102 Advanced Health Assessment: Clinical Lab Cr. 1.
- NURS 6103 Advanced Pathophysiology Cr. 3.
- NURS 6104 Advanced Pharmacology Cr. 3.

### AGACNP Concentration Courses (24 Credit Hours)

- NURS 5604 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT Credit 3.
- NURS 5608 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT II Credit 3.
- NURS 5610 DIAGNOSTIC INTERPRETATION & THERAPEUTIC MODALITIES Credit 3.
- NURS 5612 ACUTE CARE & PHARMACOTHERAPEUTICS Credit 3.

- NURS 5613 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT Practicum I Credit 2.
- NURS 5616 INTERNSHIP IN ACUTE CARE NP PRACTICE Credit 2.
- NURS 6021 APPLICATION OF ADVANCED SKILLS IN ACUTE CARE Credit 2.
- NURS 6023 PALLIATIVE/ END OF LIFE CARE AND THE APN Credit 2.

# Nursing, Family Nurse Practitioner Concentration, M.S.N.

The Family Nurse Practitioner (FNP) concentration is an online Master of Science program with two residency experiences. The residency experiences will allow students to connect with faculty and peers as they receive experiential learning opportunities in the nursing lab. These residency components are requirements of the program and will be associated in the following courses:

NURS 6615 Primary Care of the Family: Practicum 1 day, on-campus residency requirement

NURS 6616 Final FNP Preceptorship Final FNP Preceptorship 1 day, on-campus residency requirement

### Degree Requirements

- Follow the Graduate School Grading System as published in the TTU Graduate School Catalog. (NOTE: only grades of A, B, and S are considered satisfactory at the graduate nursing level.)
- Required GPA:
  - Students in graduate nursing programs 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 order to graduate. Only grades of A, B and S are considered satisfactory in the graduate nursing level;
  - 2. In addition, a graduate nursing student must achieve a grade of "B" or better in every graduate nursing course. Policies of the School of Graduate Studies for progression will apply.
  - 3. MSN students who earn less than a "B" in a required course will have one opportunity to repeat the course. The course must be repeated at the next available opportunity. Students may only repeat two required courses. The repeated grade and the original grade will be averaged into the student's overall GPA.
  - 4. If a student's cumulative grade point average falls below 3.0, she/he will be placed on academic probation at the end of that semester. Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester. 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.
  - 5. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GP A of 3 .0 after one semester may be subject to dismissal without a probationary term.
  - 6. An incomplete grade ("I") indicates that the 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 work for which the "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. Students with more than one "I" grade cannot progress in the program. Time extension requests for removal of an "I" grade must be submitted to and approved by the Dean of College of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines in the Graduate Catalog will be converted to an "F."

### ADN or Diploma Graduate with a Bachelor's Degree in another Discipline Accelerated Option

The following pathway is provided allowing a registered nurse with a bachelor's degree in another field to complete their Master's in Nursing degree:

- NURS 4350 (5350) Healthcare of Communities Cr. 4.
- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.

#### **BSN to MSN Degree Requirements**

- MSN Core Courses: 14 hours
- Advanced Practice Concentration Required Courses: 10 hours
- Required Concentration Courses: 22 hours
- Total: 46 hours

### MSN Core Courses (14 hours)

- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.
- NURS 6910 Role Transition to Certification and Practice Cr. 2

### Family Nurse Practitioner Concentration

### Advanced Practice Concentration Required Courses (10 hours)

- NURS 6101 Advanced Health Assessment Cr. 3. OR
- NURS 5009 Health Assessment Throughout the Lifespan Cr. 3.
- NURS 6102 Advanced Health Assessment: Clinical Lab Cr. 1.
- NURS 6103 Advanced Pathophysiology Cr. 3.
- NURS 6104 Advanced Pharmacology Cr. 3.

### Required Concentration Courses (22 hours)

• NURS 6610 - Adult Health Primary Care I Cr. 3.

- NURS 6611 Adult Health Primary Care I Practicum Cr. 3.
- NURS 6612 Adult Health Primary Care II Cr. 3.
- NURS 6613 Adult Health Primary Care II Practicum Cr. 3.
- NURS 6614 Primary Care Pediatrics & Women's Health Cr. 3.
- NURS 6615 Primary Care of the Family: Practicum Credit 3.
- NURS 6616 Final FNP Preceptorship Cr. 3.

Total practice contact hours = 540

# Nursing, Nursing Administration Concentration, M.S.N.

#### **Degree Requirements**

- Follow the Graduate School Grading System as published in the TTU Graduate School Catalog. (NOTE: only grades of A, B, and S are considered satisfactory at the graduate nursing level.)
- Required GPA:
  - Students in graduate nursing programs 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 order to graduate. Only grades of A, B and S are considered satisfactory in the graduate nursing level;
  - 2. In addition, a graduate nursing student must achieve a grade of "B" or better in every graduate nursing course. Policies of the School of Graduate Studies for progression will apply.
  - 3. MSN students who earn less than a "B" in a required course will have one opportunity to repeat the course. The course must be repeated at the next available opportunity. Students may only repeat two required courses. The repeated grade and the original grade will be averaged into the student's overall GPA.
  - 4. If a student's cumulative grade point average falls below 3.0, she/he will be placed on academic probation at the end of that semester. Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester. 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.
  - 5. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GP A of 3 .0 after one semester may be subject to dismissal without a probationary term.
  - 6. An incomplete grade ("I") indicates that the 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 work for which the "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. Students with more than one "I" grade cannot progress in the program. Time extension requests for removal of an "I" grade must be submitted to and approved by the Dean of College of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines in the Graduate Catalog will be converted to an "F."

### ADN or Diploma Graduate with a Bachelor's Degree in another Discipline Accelerated Option

The following pathway is provided allowing a registered nurse with a bachelor's degree in another field to complete their Master's in Nursing degree:

- NURS 4350 (5350) Healthcare of Communities Cr. 4.
- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.

### **BSN to MSN Degree Requirements**

- MSN Core: 15 hours
- Concentration Core: 15 hours
- Practicum: 6 hours
- Total: 36 hours

### MSN Core Courses (15 hours)

- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.
- NURS 6990 Scholarly Synthesis Cr. 3.

### **Nursing Administration Concentration**

### Required Courses (15 hours)

- NURS 6301 Nursing Administration I Cr. 3.
- NURS 6302 Nursing Administration II Cr. 3.
- NURS 6303 Health Care Finance Cr. 3.
- NURS 6304 Human Resources Management Cr. 3.
- NURS 6305 Quality Management in Nursing and Health Care Cr. 3.

### Practicum Requirement (6 hours)

- NURS 6309 Nursing Administration Practicum Cr. 4.
- NURS 6307 Nursing Management Practicum Cr. 2.

### Total practice contact hours = 360

# Nursing, Nursing Education Concentration, M.S.N.

### Degree Requirements

- Follow the Graduate School Grading System as published in the TTU Graduate School Catalog. (NOTE: only grades of A, B, and S are considered satisfactory at the graduate nursing level.)
- Required GPA:
  - Students in graduate nursing programs 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 order to graduate. Only grades of A, B and S are considered satisfactory in the graduate nursing level;
  - 2. In addition, a graduate nursing student must achieve a grade of "B" or better in every graduate nursing course. Policies of the School of Graduate Studies for progression will apply.
  - 3. MSN students who earn less than a "B" in a required course will have one opportunity to repeat the course. The course must be repeated at the next available opportunity. Students may only repeat two required courses. The repeated grade and the original grade will be averaged into the student's overall GPA.
  - 4. If a student's cumulative grade point average falls below 3.0, she/he will be placed on academic probation at the end of that semester. Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester. 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.
  - 5. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GP A of 3 .0 after one semester may be subject to dismissal without a probationary term.
  - 6. An incomplete grade ("I") indicates that the 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 work for which the "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. Students with more than one "I" grade cannot progress in the program. Time extension requests for removal of an "I" grade must be submitted to and approved by the Dean of College of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines in the Graduate Catalog will be converted to an "F."

### ADN or Diploma Graduate with a Bachelor's Degree in another Discipline Accelerated Option

The following pathway is provided allowing a registered nurse with a bachelor's degree in another field to complete their Master's in Nursing degree:

- NURS 4350 (5350) Healthcare of Communities Cr. 4.
- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.

### **BSN to MSN Degree Requirements**

- MSN Core Courses: 15 hours
- Required Concentration Core: 16 hours
- Practicum Requirement: 6 hours

• Total: 40 hours

### MSN Core Courses (15 hours)

- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.
- NURS 6990 Scholarly Synthesis Cr. 3.

### **Nursing Education Concentration**

### Required Concentration Core (19 hours)

- NURS 6101 Advanced Health Assessment Cr. 3. OR
- NURS 5009 Health Assessment Throughout the Lifespan Cr. 3.
- NURS 6103 Advanced Pathophysiology Cr. 3.
- NURS 6104 Advanced Pharmacology Cr. 3.
- NURS 6204 Curriculum Design & Education Theory Cr. 3.
- NURS 6205 Evaluation Methods in Nursing Education Cr. 2.
- NURS 6210 Innovative Teaching Strategies Cr. 2.
- NURS 6211 Trends in Healthcare Management Cr. 2.
- NURS 6212 Preparation for Certification Cr. 1.

### Practicum Requirement (6 hours)

- NURS 6207 Clinical Focus Practicum Cr. 2.
- NURS 6209 Nursing Education Practicum Cr. 4.

### Total practice contact hours = 360

Clinical Focus Practicum = 120

Nursing Education Practicum = 240

\*Students choosing the nursing education concentration who desire to take national certification exams for the Clinical Nurse Specialist (CNS) will also need to meet requirements in the CNS option.

# Nursing, Psychiatric Mental Health Nurse Practitioner Concentration M.S.N.

Each year 1 in 4 in the United States people will experience mental illness. Those who receive mental health services report improvements in both symptoms and in quality of life, but an alarming number of both children and adults are not receiving this care. There is a growing shortage of mental health providers

nationwide and the need for adequate mental health services presents an opportunity for nurses to expand their practice to meet this need.

To address the increasing demand for mental services and providers throughout our state, nation and region, we are offering a Master of Science in Nursing – Psychiatric Mental Health Nurse Practitioner concentration. This concentration prepares graduates to promote mental health and to diagnose and treat mental illnesses in a variety of settings. This degree qualifies graduates to test for certification in this specialty and to then pursue licensure in their respective states as an Advanced Practice Registered Nurse.

### **Degree Requirements**

- Follow the Graduate School Grading System as published in the TTU Graduate School Catalog. (NOTE: only grades of A, B, and S are considered satisfactory at the graduate nursing level.)
- Required GPA:
  - Students in graduate nursing programs 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 order to graduate. Only grades of A, B and S are considered satisfactory in the graduate nursing level;
  - 2. In addition, a graduate nursing student must achieve a grade of "B" or better in every graduate nursing course. Policies of the School of Graduate Studies for progression will apply.
  - 3. MSN students who earn less than a "B" in a required course will have one opportunity to repeat the course. The course must be repeated at the next available opportunity. Students may only repeat two required courses. The repeated grade and the original grade will be averaged into the student's overall GPA.
  - 4. If a student's cumulative grade point average falls below 3.0, she/he will be placed on academic probation at the end of that semester. Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester. 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.
  - 5. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GP A of 3 .0 after one semester may be subject to dismissal without a probationary term.
  - 6. An incomplete grade ("I") indicates that the 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 work for which the "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. Students with more than one "I" grade must be submitted to and approved by the Dean of College of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines in the Graduate Catalog will be converted to an "F."

### ADN or Diploma Graduate with a Bachelor's Degree in another Discipline Accelerated Option

The following pathway is provided allowing a registered nurse with a bachelor's degree in another field to complete their Master's in Nursing degree:

• NURS 4350 (5350) - Healthcare of Communities Cr. 4.

- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.

### **BSN to MSN Degree Requirements**

- MSN Core Courses: 14 hours
- Advance Practice Courses: 10 hours
- Required Concentration Courses: 21 hours
- Total: 45 hours

### MSN Core Courses (14 hours)

- NURS 6000 Theoretical Foundations Cr. 3.
- NURS 6001 Health Care Policy Cr. 3.
- NURS 6002 Advanced Nursing Research Cr. 3.
- NURS 6003 Advanced Role Development Cr. 3.
- NURS 6911 Role Transition to Certification and Practice for the Psychiatric Mental Health Nursing Practitioner Cr. 2.

### **Psychiatric Mental Health Nurse Practitioner Concentration**

#### Advance Practice Courses (10 hours)

- NURS 6101 Advanced Health Assessment Cr. 3.
- NURS 6102 Advanced Health Assessment: Clinical Lab Cr. 1.
- NURS 6103 Advanced Pathophysiology Cr. 3.
- NURS 6104 Advanced Pharmacology Cr. 3.

### **Required Concentration Courses (21 hours)**

- NURS 6710 Advanced Family Psychiatric Nursing I Cr. 3.
- NURS 6711 Advanced Family Psychiatric Nursing I: Practicum Cr. 3.
- NURS 6712 Advanced Family Psychiatric Nursing II Cr. 3.
- NURS 6713 Advanced Family Psychiatric Nursing II: Practicum Cr. 3.
- NURS 6714 Advanced Family Psychiatric Nursing III Cr. 3.
- NURS 6715 Advanced Family Psychiatric Nursing III: Practicum Cr. 3.
- NURS 6716 Final Psychiatric Nursing Preceptorship Cr. 3.

# **Doctor of Nursing Practice**

# Nursing, Adult-Gerontology Acute Care Nurse Practitioner Concentration, DNP (TTU-ETSU)

Adult-Gerontology Acute Care Nurse Practitioner Program Information (DNP)

### BSN-DNP Degree Requirements (75 hours)

- Core Requirements: 35 hours
- Concentration: 28 hours
- DNP Project: 12 hours
- Total: 75 hours

# BSN-DNP Core Requirements (35 hours)

- NRSE 5000 Conceptual Systems for Advanced Nursing Practice Cr. 3.
- NRSE 5001 Nursing Reserach for Evidence-Based Practice Cr. 3.
- NRSE 5006 Advanced Role Devolopment Cr. 3.
- NRSE 5009 Health Assessment Throughout the Lifespan Cr. 3.
- NRSE 5010 Health Assessment Throughout the Lifespan Practicum Cr. 3.
- NRSE 5016 Advanced Pathophysiology Cr. 3.
- NRSE 5018 Advanced Clinical Pharmacology Cr. 3.
- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6002 Health Policy Leadership Cr. 3.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

# BSN-DNP Concentration Requirements (28 hours)

- NRSE 5604 Advanced Pathophysiology & Clinical Reasoning for Acute Disease Management I Cr. 3.
- NRSE 5608 Advanced Pathophysiology & Clinical Reasoning for Acute Disease Management II Cr. 3.
- NRSE 5610 Diagnostic Interpretation and Therapeutic Modalities Cr. 3.
- NRSE 5612 ACUTE CARE & PHARMACOTHERAPEUTICS Credit 3.
- NRSE 5613 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT Practicum 1 Credit 2.
- NRSE 5614 ADVANCED PATHOPHYSIOLOGY & CLINICAL REASONING FOR ACUTE CARE MANAGEMENT PRACTICUM II Credit 2.
- NRSE 5617 Diagnostic Interpretation & Therapeutic Modalities Practicum Credit 2.
- NRSE 6021 Application of Advanced Skills in Acute Care Credit 2.
- NRSE 6022 Strategic Planning for Health Care Credit 2.
- NRSE 6023 Palliative/End of Life Care and the APN Credit 2.

# DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

### MSN-DNP Degree Requirements (31 hours)\*

- Core Requirements: 11 hours
- Concentration: 8 hours
- DNP Project: 12 hours
- Total: 35 hours

\*If you are a MSN to DNP student and you are changing your specialization, your transcript will be evaluated and you will receive an individualized program of study from the Graduate Programs Coordinator to include 5000 level courses that you will need for certification.

# MSN-DNP Core Requirements (11 hours)

- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

### MSN-DNP Concentration Requirements (8 hours)

- NRSE 6022 Strategic Planning for Health Care Credit 2.
- NRSE 6023 Palliative/End of Life Care and the APN Credit 2.

### DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

# Nursing, Family Nurse Practitioner Concentration, DNP (TTU-ETSU)

Family Nurse Practitioner DNP Program Information

### **BSN-DNP Degree Requirements (83 hours)**

- Core Requirements: 35 hours
- Concentration: 36 hours
- DNP Project: 12 hours
- TOTAL: 83 hours

### BSN-DNP Core Requirements (35 hours)

- NRSE 5000 Conceptual Systems for Advanced Nursing Practice Cr. 3.
- NRSE 5001 Nursing Reserach for Evidence-Based Practice Cr. 3.

- NRSE 5006 Advanced Role Devolopment Cr. 3.
- NRSE 5009 Health Assessment Throughout the Lifespan Cr. 3.
- NRSE 5010 Health Assessment Throughout the Lifespan Practicum Cr. 3.
- NRSE 5016 Advanced Pathophysiology Cr. 3.
- NRSE 5018 Advanced Clinical Pharmacology Cr. 3.
- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6002 Health Policy Leadership Cr. 3.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

# BSN-DNP Concentration Requirements (35 hours)

- NRSE 5011 Health Promotion, Diagnosis, Treatment, and Clinical Management: Nurse Practitioner I Cr. 3.
- NRSE 5012 Health Promotion, Diagnosis, Treatment, and Clinical Management: Nurse Practitioner I Practicum Cr. 3.
- NRSE 5013 Health Promotion, Diagnosis, Treatment, and Clinical Management: Nurse Practitioner II Cr. 3.
- NRSE 5014 Health Promotion, Diagnosis, & Clinical Management of Older Adults Practicum Cr. 3.
- NRSE 5021 Lifespan Assessment and Clinical Management: Women's Health Cr. 2.
- NRSE 5022 Lifespan Assessment and Clinical Management: Women's Health Practicum Cr. 3.
- NRSE 5023 Health Promotion and Clinical Management of Children and Adolescents Cr. 3.
- NRSE 5024 Health Promotion, Diagnosis and Clinical Management of Children and Adolescents Practicum Cr. 3.
- NRSE 6400 Improving Mental Health Outcomes in Primary Care Cr. 3.
- NRSE 6613 Advanced Nursing of Rural/Underserved Populations Cr. 3.
- NRSE 6614 Advanced Intervention DNP Practice Cr. 3.
- Advisor Approved Elective Cr. 3.

### DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

### **MSN-DNP Degree Requirements (32 hours)**

- Core Requirements: 11 hours
- Concentrations: 9 hours
- DNP Project: 12 hours
- TOTAL: 32 hours\*

\*If you are a MSN to DNP student and you are changing your specialization, your transcript will be evaluated and you will receive an

individualized program of study from the Graduate Programs Coordinator to include 5000 level courses that you will need for certification.

# MSN-DNP Core Requirements (11 hours)

- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

# MSN-DNP Concentration Requirements (9 hours)

- NRSE 6613 Advanced Nursing of Rural/Underserved Populations Cr. 3.
- NRSE 6614 Advanced Intervention DNP Practice Cr. 3.
- Advisor Approved Elective Cr. 3.

# DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

# Nursing, Nursing and Healthcare Leadership, DNP (TTU-ETSU)

Nursing and Healthcare Leadership Program Information

### **Degree Admissions Requirements**

Applicants seeking admission to the DNP program must fulfill all requirements for admission to the Graduate College.

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN ·and a master's in another discipline. Additional requirements for admission to the DNP program include:

1. BSN·DNP applicants:

- A bachelor's degree in nursing is required;
- For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;
BSN and a Masters in a non-nursing field (MBA, MPH, MHA, MMCH, etc.) or MSN in a nonnursing administration concentration.

Note: Students with a masters in a content area other than nursing will start with a MSN-DNP program plan but additions in coursework in the following areas: Leadership, Finance, Quality Improvement, clinical hours, and other content areas based on the transcript review may be required. Coursework must be at the graduate level.

2. MSN-DNP applicants:

• A completed MS in Nursing (MSN) with a concentration in Nursing Administration or equivalent.

3. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;

4. Three professional letters of recommendation are required.

5. All applicants will participate in an interview;

6. All applicants will be required to complete a personal statement with the application addressing why you want to go to graduate school and why this program would be a good fit with your career goals. The personal statement must also address the following questions: What current trend(s) in healthcare do you find the most concerning or compelling? What in our education and/or professional practice has prepared you to address the identified trend(s)? How do you think you will be able to impact the trend(s) you identified, in your new role when you have completed your graduate study? Use at least two scholarly references and write the essay in American Psychological Associate (APA) format. The writing must be your own work; and

7. A current resume or vita.

The completed application form and fee, transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification (where applicable), letters of recommendation and resume or vita must be submitted through the online application portal to the ETSU College of Graduate and Continuing Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also upload the additionally required documentation to the appropriate school.

Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample and during the interview, writing ability, professional work experience and achievements, professional honors and awards, interest In rural and under-served population groups, and quality of references/recommendations. The ETSU-TTU DNP Program Admission Committee may recommend admission to a promising applicant who has not met all the admission standards on a conditional or provisional basis.

#### **BSN-DNP Degree Requirements (77 hours)**

- Core Requirements: 23 hours
- Concentration: 42 hours
- DNP Project: 12 hours
- TOTAL: 77 hours

### BSN-DNP Core Requirements (23 hours)

- NRSE 5000 Conceptual Systems for Advanced Nursing Practice Cr. 3.
- NRSE 5001 Nursing Reserach for Evidence-Based Practice Cr. 3.

- NRSE 5006 Advanced Role Devolopment Cr. 3.
- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6002 Health Policy Leadership Cr. 3.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

## BSN-DNP Concentration Requirements (42 hours)

- NRSE 5501 Leadership in Nursing Administration Cr. 1.
- NRSE 5502 Executive Leadership Practicum I Cr. 3.
- NRSE 5503 Executive Leadership Practicum II Cr. 3.
- NRSE 5504 Executive Leadership Practicum III Cr. 3.
- NRSE 5510 Organizational Theory and Nursing Administration Cr. 3.
- NRSE 5520 Fiscal Management in Nursing Administration Cr. 3.
- NRSE 5530 Health Care Organizations & Law Cr. 3.
- NRSE 5550 Human Resource Management in Health Organizations Cr. 3.
- NRSE 5580 Project Management of Nurse Leaders Cr. 3.
- NRSE 6513 Case Management Cr. 3.
- NRSE 6712 Strategic Fiscal Management Cr. 3.
- NRSE 6714 Executive Leadership Cr. 3.
- NRSE 6715 Contemporary Problems in Executive Leadership in Nursing Cr. 3.

## DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

#### MSN-DNP Degree Requirements (32 hours)

- Core Requirements: 11 hours
- Concentration: 9 hours
- DNP Project: 12 hours
- TOTAL: 32 hours\*

\*If you are a MSN to DNP student and you are changing your specialization, your transcript will be evaluated and you will receive an individualized program of study from the Graduate Programs Coordinator to include 5000 level courses that you will need for certification.

## MSN-DNP Core Requirements (11 hours)

• NRSE 5100 - Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.

- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

### MSN-DNP Concentration Requirements (9 hours)

- NRSE 6712 Strategic Fiscal Management Cr. 3.
- NRSE 6714 Executive Leadership Cr. 3.
- NRSE 6715 Contemporary Problems in Executive Leadership in Nursing Cr. 3.

## DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

## Nursing, Pediatric Nurse Practitioner-Primary Care Concentration, DNP (TTU-ETSU)

Pediatric Nurse Practitioner - Primary Care Program Information

#### BSN-DNP Degree Requirements (77 hours)

- Core Requirements: 35 hours
- Concentration: 30 hours
- DNP Project: 12 hours
- TOTAL: 77 hours

## BSN-DNP Core Requirements (35 hours)

- NRSE 5000 Conceptual Systems for Advanced Nursing Practice Cr. 3.
- NRSE 5001 Nursing Reserach for Evidence-Based Practice Cr. 3.
- NRSE 5006 Advanced Role Devolopment Cr. 3.
- NRSE 5009 Health Assessment Throughout the Lifespan Cr. 3.
- NRSE 5010 Health Assessment Throughout the Lifespan Practicum Cr. 3.
- NRSE 5016 Advanced Pathophysiology Cr. 3.
- NRSE 5018 Advanced Clinical Pharmacology Cr. 3.
- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6002 Health Policy Leadership Cr. 3.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

## BSN-DNP Concentration Requirements (30 hours)

- NRSE 5305 Pediatric Primary Care I: Well Child Cr. 3.
- NRSE 5306 Pediatric Primary Care II: Episodic & Minor Acute Illness Cr. 3.
- NRSE 5311 Advanced Practice Nursing: Pediatric Primary Care Practicum I Cr. 3.
- NRSE 5312 Advanced Practice Nursing: Pediatric Primary Care Practicum II Cr. 3.
- NRSE 5314 ADVANCED APPLICATION IN DELIVERY OF ADVANCED PEDIATRIC PRIMARY CARE – PRECEPTORSHIP & CERTIFICATION PREP Credit 3.
- NRSE 5315 HEATLH PROMOTION OF THE GROWING CHILD Credit 2.
- NRSE 5316 PEDIATRIC PRIMARY CARE III CHRONIC ILLNESS, DISABILITY, AND COMPLEX CONDITIONS Credit 3.
- NRSE 5317 ADVANCED PEDIATRIC NURSING PRACTICUM III Credit 3.
- NRSE 6311 Advanced Family System Assessment and Evaluation Cr. 3.
- NRSE 6317 Integrated Applications of Leadership & Pediatric Healthcare Delivery Cr. 3.

### DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

#### MSN-DNP Degree Requirements (30 hours)

- Core Requirements: 11 hours
- Concentration: 7 hours
- DNP Project: 12 hours
- TOTAL: 30 hours\*

\* If you are a MSN to DNP student and you are changing your specialization, your transcript will be evaluated and you will receive an individualized program of study from the Graduate Programs Coordinator to include 5000 level courses that you will need for certification.

## MSN-DNP Core Requirements (11 hours)

- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

### MSN-DNP Concentration Requirements (7 hours)

- NRSE 6311 Advanced Family System Assessment and Evaluation Cr. 3.
- NRSE 6317 Integrated Applications of Leadership & Pediatric Healthcare Delivery Cr. 3.

### DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.

- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

## Nursing, Psychiatric/Mental Health Nurse Practitioner Concentration, DNP (TTU-ETSU)

Psychiatric/Mental Health Nurse Practitioner Program Information

#### **BSN-DNP Degree Requirements (80 hours)**

- Core Requirements: 35 hours
- Concentration: 33 hours
- **DNP Project:** 12 hours
- TOTAL: 80 hours

### BSN-DNP Core Requirements (35 hours)

- NRSE 5000 Conceptual Systems for Advanced Nursing Practice Cr. 3.
- NRSE 5001 Nursing Reserach for Evidence-Based Practice Cr. 3.
- NRSE 5006 Advanced Role Devolopment Cr. 3.
- NRSE 5009 Health Assessment Throughout the Lifespan Cr. 3.
- NRSE 5010 Health Assessment Throughout the Lifespan Practicum Cr. 3.
- NRSE 5016 Advanced Pathophysiology Cr. 3.
- NRSE 5018 Advanced Clinical Pharmacology Cr. 3.
- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6002 Health Policy Leadership Cr. 3.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

### BSN-DNP Concentration Requirements (33 hours)

- NRSE 5303 Psychopharmacology Cr. 4.
- NRSE 5404 Advanced Family Psychiatric Nursing Care I Cr. 3.
- NRSE 5405 Advanced Family Psychiatric Nursing Care I Practicum Cr. 3.
- NRSE 5408 Advanced Family Psychiatric Nursing Care II Cr. 3.
- NRSE 5409 Advanced Family Psychiatric Nursing Care II Practicum Cr. 3.
- NRSE 5410 Interpersonal Treatment Modalities for Advanced Practice Nurse Cr. 3.
- NRSE 5411 Interpersonal Treatment Modalities for Advanced Practice Nurse Practicum Cr. 3.
- NRSE 6414 Neurobiology Psychiatric Disorder Cr. 3.
- NRSE 6415 Mental Health Care Delivery Systems Cr. 3.
- Advisor Approved Elective Cr. 3.
- NRSE 6950 Internship in Advanced Nursing Practice Cr. 3.

### DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

#### MSN-DNP Degree Requirements (32 hours)

- Core Requirements: 11 hours
- Concentration: 9 hours
- DNP Project: 12 hours
- TOTAL: 32 hours\*

\*If you are a MSN to DNP student and you are changing your specialization, your transcript will be evaluated and you will receive an individualized program of study from the Graduate Programs Coordinator to include 5000 level courses that you will need for certification.

### MSN-DNP Core Requirements (11 hours)

- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

### MSN-DNP Concentration Requirements (9 hours)

- NRSE 6414 Neurobiology Psychiatric Disorder Cr. 3.
- NRSE 6415 Mental Health Care Delivery Systems Cr. 3.
- Advisor Approved Elective Cr. 3.

### DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

## Nursing, Women's Health Care Nurse Practitioner Concentration, DNP (TTU-ETSU)

Women's Health Care Nurse Practitioner Program Information

#### **BSN-DNP Degree Requirements (79 hours)**

- Core Requirements: 35 hours
- Concentration: 32 hours
- **DNP Project:** 12 hours

• TOTAL: 79 hours

## BSN-DNP Core Requirements (35 hours)

- NRSE 5000 Conceptual Systems for Advanced Nursing Practice Cr. 3.
- NRSE 5001 Nursing Reserach for Evidence-Based Practice Cr. 3.
- NRSE 5006 Advanced Role Devolopment Cr. 3.
- NRSE 5009 Health Assessment Throughout the Lifespan Cr. 3.
- NRSE 5010 Health Assessment Throughout the Lifespan Practicum Cr. 3.
- NRSE 5016 Advanced Pathophysiology Cr. 3.
- NRSE 5018 Advanced Clinical Pharmacology Cr. 3.
- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6002 Health Policy Leadership Cr. 3.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

### BSN-DNP Concentration Requirements (32 hours)

- NRSE 5701 Pharmacology for Women's Health Cr. 2.
- NRSE 5702 Women's Health for Advanced Practice I: GYN Cr. 3.
- NRSE 5710 Primary Care in Women's Health Cr. 3.
- NRSE 5711 Women's Health for Advance Practice IV Practicum Credit 2.
- NRSE 5712 Women's Health for Advanced Practice II: OB Credit 4
- NRSE 5713 Complex Issues in Women's Health Credit 3.
- NRSE 5714 Women's Health for Advanced Practicum I: GYN Credit 2.
- NRSE 5715 Women's Health for Advanced Practicum II: OB Credit 2.
- NRSE 6210 Development of DNP Practice in Women's Health Cr. 3.
- NRSE 6211 Advanced Nursing Care of the Vulnerable Woman Cr. 3.
- NRSE 6213 Integrative Approaches to Women's Health Cr. 3.

### DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

#### MSN-DNP Degree Requirements (32 hours)

- Core Requirements: 11 hours
- Concentration: 9 hours
- DNP Project: 12 hours
- TOTAL: 32 hours\*

\*If you are a MSN to DNP student and you are changing your specialization, your transcript will be evaluated and you will receive an individualized program of study from the Graduate Programs Coordinator to include 5000 level courses that you will need for certification.

## MSN-DNP Core Requirements (11 hours)

- NRSE 5030 Scholarly Writing Cr. 1.
- NRSE 5100 Principles of Population Health & Data Analysis for Advanced Nursing Practice Cr. 4.
- NRSE 6050 Quality/Translation Cr. 3.
- NRSE 6713 Systems Management Cr. 3.

### MSN-DNP Concentration Requirements (9 hours)

- NRSE 6210 Development of DNP Practice in Women's Health Cr. 3.
- NRSE 6211 Advanced Nursing Care of the Vulnerable Woman Cr. 3.
- NRSE 6213 Integrative Approaches to Women's Health Cr. 3.

## DNP Project (12 hours)

- NRSE 6801 Residency I DNP Project Identification Cr. 3.
- NRSE 6802 DNP Project Development Cr. 3.
- NRSE 6803 DNP Project Implementation Cr. 3.
- NRSE 6804 DNP Project Analysis and Dissemination Cr. 3.

## **Family Nurse Practitioner Certificate – Program**

## Nursing, Post-Graduate Certificate, Family Nurse Practitioner (FNP)

Family Nurse Practitioner Program Information

#### <u>Curriculum</u>

### **Required Courses**

- NURS 6610 Adult Health Primary Care I Cr. 3.
- NURS 6611 Adult Health Primary Care I Practicum Cr. 3.
- NURS 6614 Primary Care Pediatrics & Women's Health Cr. 3.
- NURS 6615 Primary Care of the Family: Practicum Credit 3.
- NURS 6612 Adult Health Primary Care II Cr. 3.
- NURS 6613 Adult Health Primary Care II Practicum Cr. 3.
- NURS 6616 Final FNP Preceptorship Cr. 3.
- NURS 6910 Role Transition to Certification and Practice Cr. 2

### Concentration(s) Total credits = 23

### Total Clock Hours: 540 hours

#### Fall Start Course Plan

Fall, Semester #1

- NURS 6610 Adult Health Primary Care I Cr. 3.
- NURS 6611 Adult Health Primary Care I Practicum Cr. 3. Spring, Semester #2
- NURS 6614 Primary Care Pediatrics & Women's Health Cr. 3.
- NURS 6615 Primary Care of the Family: Practicum Credit 3. Summer, Semester #3
- NURS 6612 Adult Health Primary Care II Cr. 3.
- NURS 6613 Adult Health Primary Care II Practicum Cr. 3. Fall, Semester #4
- NURS 6616 Final FNP Preceptorship Cr. 3.
- NURS 6910 Role Transition to Certification and Practice Cr. 2

#### **Spring Start Course Plan**

Spring, Semester #1

- NURS 6610 Adult Health Primary Care I Cr. 3.
- NURS 6611 Adult Health Primary Care I Practicum Cr. 3. Summer, Semester #2
- NURS 6614 Primary Care Pediatrics & Women's Health Cr. 3.
- NURS 6615 Primary Care of the Family: Practicum Credit 3. Fall, Semester #3
- NURS 6612 Adult Health Primary Care II Cr. 3.
- NURS 6613 Adult Health Primary Care II Practicum Cr. 3. Spring, Semester #4
- NURS 6616 Final FNP Preceptorship Cr. 3.
- NURS 6910 Role Transition to Certification and Practice Cr. 2

## **MSN Post-Master's Nursing Certificate Program**

## Nursing, Post Graduate Certificate for Psychiatric Mental Health Nurse Practitioner Concentration (MSN)

The PMHNP Post-Graduate Certificate is targeted toward Advance Practice Registered Nurses (Nurse Practitioner) who are seeking a second certification as a PMHNP. This certificate can be completed in a four-semester time frame for current APRN's. Certificate graduates will be eligible to sit for a second certification as a PMHNP. The certificate is a 23 credit hour and 560 clinical contact hour post-graduate certificate.

#### **Certificate Admissions Requirements**

- Minimum of a Master of Science of Nursing from a regionally accredited college/university and nursing program accreditation.
- Current, unencumbered Registered Nurse license
- Current certification as an APRN

- A minimum of 3.0 GPA in the last degree earned
- A minimum of a "B" in the 3 "P's" and these courses must be independent courses and address concepts across the lifespan:
  - $\circ$   $\;$  Advanced Pathophysiology with general principles applied across the lifespan
  - Advanced Pharmacology including pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad classes of pharmacologic agents
  - Advanced Health Assessment with a lab and includes all human systems, advanced assessment techniques and approaches

(The above courses are available at TTU and students can apply for non-degree status to complete these pre-admission requirements

\*\*Non-APRN's holding a minimum of a Master of Science in Nursing are encouraged to apply to the PMHNP concentration for an evaluation of their transcript to determine placement in the curriculum.

#### **Required Coursework**

- NURS 6710 Advanced Family Psychiatric Nursing I Cr. 3.
- NURS 6711 Advanced Family Psychiatric Nursing I: Practicum Cr. 3.
- NURS 6712 Advanced Family Psychiatric Nursing II Cr. 3.
- NURS 6713 Advanced Family Psychiatric Nursing II: Practicum Cr. 3.
- NURS 6714 Advanced Family Psychiatric Nursing III Cr. 3.
- NURS 6715 Advanced Family Psychiatric Nursing III: Practicum Cr. 3.
- NURS 6716 Final Psychiatric Nursing Preceptorship Cr. 3.
- NURS 6911 Role Transition to Certification and Practice for the Psychiatric Mental Health Nursing Practitioner Cr. 2.

## Certificate

# Nursing, Post Graduate Certificate Adult Geriatric Acute Care Nurse Practitioner

This post-graduate certificate in AGACNP will allow APRN's certified in other concentrations such as FNP to expand their role and increase their ability to market themselves in the acture care environment. This certificate is a 22 credit hour program and 500 clinical contact hours.

#### Required Coursework (22 Credit Hours)

- NURS 5604 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT Credit 3.
- NURS 5608 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT II Credit 3.
- NURS 5610 DIAGNOSTIC INTERPRETATION & THERAPEUTIC MODALITIES Credit 3.
- NURS 5612 ACUTE CARE & PHARMACOTHERAPEUTICS Credit 3.
- NURS 5613 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT Practicum I Credit 2.
- NURS 5614 ADVANCED PATHOPHYSIOLOGY AND CLINICAL REASONING FOR ACUTE DISEASE MANAGEMENT II PRACTICUM Credit 2.

- NURS 5616 INTERNSHIP IN ACUTE CARE NP PRACTICE Credit 2.
- NURS 5617 DIAGNOSTIC INTERPRETATION & THERAPEUTIC MODALITIES Practicum Credit
  2.
- NURS 6021 APPLICATION OF ADVANCED SKILLS IN ACUTE CARE Credit 2.

#### 500 Clinical Contact Hours

# Nursing, Post Graduate Certificate for Nursing Education (NUED)

One of the contributing factors for the national nursing shortage is a deficit in qualified nursing faculty to support nursing programs. This is an issue at every level of nursing. In addition, health care facilities are seeking nurse educators to maintain clinical education expectations for nursing staff in their facilities. Providing an opportunity for nurses who currently hold a Master's of Science of Nursing degree to gain formal education and certification as a Nurse Educator is a positive move in promoting nursing education in both the classroom and clinical setting. This 16-credit hour post graduate certificate can be completed in 3 semesters and students will be enrolled in content courses with current MSN Nursing Education majors

#### Minimum Admissions Requirements for Current MSN Applicants

- Minimum of a Master of Science in Nursing from a regionally accredited college/university and nursing program accreditation
- Current, unencumbered Registered Nurse license
- A minimum of 3.0 GPA in the last degree earned
- A minimum of a "B" in the 3 "P's" and these courses must be independent courses and address the concepts across the lifespan:
  - o Advanced Pathophysiology with general principles applied across the lifespan
  - Advanced Pharmacology including pharmacodynamics, pharmacokinetics, and pharmatherapeutics of all broad classes of pharmacologic agents
  - Advanced Health Assessment
- The above courses are available at TTU and students can apply for non-degree status to complete these pre-admission requirements

#### Total Credit Hours: 16

- NURS 6204 Curriculum Design & Education Theory Cr. 3.
- NURS 6205 Evaluation Methods in Nursing Education Cr. 2.
- NURS 6207 Clinical Focus Practicum Cr. 2.
- NURS 6209 Nursing Education Practicum Cr. 4.
- NURS 6210 Innovative Teaching Strategies Cr. 2.
- NURS 6211 Trends in Healthcare Management Cr. 2.
- NURS 6212 Preparation for Certification Cr. 1.

## Nursing, Post-Certificate Pediatric Nurse Practitioner

The Post-Certificate Pediatric Nurse Practitioner program is 23 credit hours and 510 clock hours.

#### Required Coursework (23 Credit Hours)

- NURS 5305 PEDIATRIC PRIMARY CARE I- WELL CHILD Credit 3.
- NURS 5306 PEDIATRIC PRIMARY CARE II- EPISODIC AND MINOR ACUTE ILLNESS Credit 3.
- NURS 5311 PEDIATRIC PRIMARY CARE I- WELL CHILD PRACTICUM Credit 3.
- NURS 5312 Advanced PEDIATRIC NURSING PRACTICUM II Credit 3.
- NURS 5314 ADVANCED APPLICATION IN DELIVERY OF ADVANED PEDIATRIC PRIMARY CARE-PRECEPTORSHIP & CERTIFICATION PREP Credit 3.
- NURS 5315 HEALTH PROMOTION OF THE GROWING CHILD Credit 2.
- NURS 5316 PEDIATRIC PRIMARY CARE III-CHRONIC ILLNESS, DISABILITY, AND COMPLEX CONDITIONS Credit 3.
- NURS 5317 ADVANCED PEDIATRIC NURSING PRACTICUM III Credit 3.

## Nursing, Post-Graduate Certificate, Women's Health Nurse Practitioner

The Post-Graduate Certificate in Women's Health Nurse Practitioner is a 23 credit hour program with 600 contact clinical hours.

#### Required Coursework (23 Credit Hours)

- NURS 5701 PHARMACOLOGY FOR WOMEN'S HEALTH Credit 2.
- NURS 5702 WOMEN'S HEALTH FOR ADVACED PRACTICE I: GYN Credit 3.
- NURS 5710 PRIMARY CARE FOR WOMEN'S HEALTH Credit 3.
- NURS 5711 WOMEN'S HEALTH FOR ADVANCED PRACTICE IV PRACTICUM Credit 2.
- NURS 5712 WOMEN'S HEALTH FOR ADVANCED PRACTICE II: OB Credit 4
- NURS 5713 Complex Issues in Women's Health Credit 3.
- NURS 5714 WOMEN'S HEALTH FOR ADVANCED PRACTICUM I: GYN Credit 2.
- NURS 5715 WOMEN'S HEALTH FOR ADVANCED PRACTICUM II: OB Credit 2.
- NURS 5716 WOMEN'S HEALTH FOR ADVANCED PRACTICE III: PRACTICUM Credit 2.

## **School of Nursing**

## **School of Nursing**

School of Nursing Information

#### Kim Hanna, Dean

Departmental Graduate Faculty: Benjamin Aaron, Toni Barnett, Sharon Bigger, Keelyn Boles, Michael Boles, Dolores Bowman, Stacey Browning, Melissa Burgess, Keisha Butler, Heather Cathey, Shirleen D. Chase, Callie Crockett, Andrew Donadio, Jusy J. Duvall, Mary Lou C. Fornehed, Darlene Franklin, Melissa J. Geist, Retha Gentry, Loyd Lee Glenn, Danielle Goolsby, Sarah Guimaraes, Rachel Hall, Kimberly Joyce Hanna, Lynette Harvey, Ann Hellman, Amber R. Hensley, Shelia Hurley, Barbara Jared, Dawn Johnson, Amanda Jones, Matthew Langford, Emily Lee, Jennifer Mabry, Geeta Maharaj, Dru Michele Malcolm, Robyn Maxwell, Monica Means, Robin Mickelson, Alexander Moore, April Morrison, Becky Pickett, Susan Piras, S. Lee Ridner, Toni Roberts, Stacie Rothfus, Bedelia Russell, Robert Sarfo, Ramona Scott, Angel Cavanaugh Sharp, Jody Smith, Julia Smith, Sarah Smith, Tony Smith, Ashleigh Snow, Beth Thompson, Jordan Moore Vaughn, Rebecca Vaughn, Valerie White, Kathryn Wilhoit, Amanda Wright

## **School of Nursing Information**

- Overview
- Admission Requirements Master's and Certificate Programs
- Admissions DNP
- Change of Status
- Student Retention and Progression Policy

#### **Overview**

The Whitson Hester School of Nursing offers the Master of Science in Nursing Degree (MSN), Post certification programs, and the Doctor of Nursing Practice Degree (DNP) which is a joint program between TTU and ETSU.

The Master of Science in Nursing Degree (MSN) is delivered following the standard protocol established for the delivery of online courses and programs. This program will prepare nurses to:

- Teach in a variety of academic and practice settings;
- Provide advanced nursing care to rural, urban, and underserved populations;
- Practice in collaborative and interdisciplinary relationships;
- Assume positions of leadership in the health care delivery system;
- Contribute to the current and evolving body of nursing science; and
- Continue study at the doctoral level.

The purposes of the MSN Program are:

- To increase access to graduate nursing education, especially for those nurses aspiring to teach in entry level nursing programs, manage professional practice work settings, and practice as advanced clinicians in a changing health care delivery system.
- To maximize the effective use of technology for delivery of graduate-level instruction. Distance
  delivery through the use of technology will increase access to graduate education, especially in
  remote areas of the state and for practicing nurses for whom time flexibility is a critical resource.
- To provide student access to web-based courses and degree programs. Web-based courses will reach populations not currently enrolled in graduate education, and will also permit students who

are currently enrolled in on-campus courses to take additional courses, thus completing their programs sooner.

#### Admission Requirements Master's and Certificate Programs

- Applicant must possess and maintain an unencumbered license to practice as a Registered Nurse in Tennessee or the state in which the clinical assignments are completed.
- An earned Bachelor's degree with an overall GPA of 3.0 on a 4.0 scale.
- Official transcripts from previously attended colleges and/or universities.
- Successful completion of a 3 semester hour or quarter hour undergraduate level Statistics course.
   o For provisional standing admission:
  - an overall undergraduate quality point average of 2.75 2.99 on a 4.0 scale,
  - upon completion of a baccalaureate degree program
- Cumulative GPA of 3.0 on a 4.0 scale for all previous graduate studies.
- TOEFL score of 600 (250 CBT) if native language is not English OR IELTS score of 6.0.
- 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.
- Letters of recommendations from at least three (3) persons (a minimum of one [1] 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.

#### Admissions - DNP

Admission requirements for the joint DNP program are as follows:

- a completed application with payment of nonrefundable application fee;
- official transcripts of all previous undergraduate and graduate coursework
- a written essay.

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

- 1. BSN-DNP applicants:
  - 1. A bachelor's degree in nursing is required;
  - For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;
- 2. MSN-DNP applicants (4 options)
  - Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.; OR
  - Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR

- 4. For the General (No Concentration) MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;
- 5. NOTE: All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.
- 3. All applicants with a cumulative GPA less than 3.2 as reported by their BSN or MSN institution will be required to take the Graduate Record Exam (GRE);
- 4. Licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;
- 5. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;
- 6. Three letters of recommendation are required: one from the applicant's current (most recent) supervisor, one from a faculty member who has worked directly with the applicant during previous academic study, and one from an individual selected by the applicant;
- 7. All applicants will participate in an interview;
- All applicants will be required to complete a writing sample at the time of the interview describing a problem the applicant has identified in practice that the applicant might explore in the DNP program;
- 9. All applicants must submit a cover letter expressing the applicant's personal goals for doctoral study; and
- 10. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's home school. International students must also forward the additionally required documentation to the appropriate home school.

The personal interview and time for completing the writing sample will be scheduled by the Joint DNP Admissions Committee. Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample 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 Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### Change of Status

Students must report the following to the Dean of the Whitson-Hester School of Nursing (WHSON) within 72 hours of change of status or requirement:

- 1. Any adverse action taken against their RN licensure (i.e. probation, termination, suspension, limiting scope of practice, any change in activity);
- 2. Placement in the Tennessee Peer Assistance Program (TNPAP) or any other peer assistance program;
- 3. Admission to a substance abuse rehabilitation program;
- 4. Any legal issues that may result in a change in their ability to pass a criminal background check, including but not limited to arrests or convictions (see University's Arrest and Conviction Self-Disclosure form (link)) or change of status legal status with regards to probation or parole.

Failure to disclose to the WHSON could result in automatic dismissal from the MSN program. In addition, student must disclose the same information to preceptors and clinical agencies and provide appropriate documentation of this disclosure to WHSON.

#### Student Retention and Progression Criteria

#### **Required GPA**

 Students in graduate nursing programs must meet the requirements of the College of Graduate Studies to remain in good standing. An overall grade point average (GPA) of 3.0 (B) or better must be maintained in order to graduate. Only grades of A, B and S are considered satisfactory in the graduate nursing level;
 In addition, a graduate nursing student must achieve a grade of "B" or better in every graduate nursing

course. Policies of the College of Graduate Studies for progression will apply.

3. MSN students who earn less than a "B" in a required course will have one opportunity to repeat the course. The course must be repeated at the next available opportunity. Students may only repeat two required courses. The repeated grade and the original grade will be averaged into the student's overall GP A.

4. If a student's cumulative grade point average falls below 3.0, she/he will be placed on academic probation at the end of that semester. Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester. 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.

5. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GP A of 3 .0 after one semester may be subject to dismissal without a probationary term.
6. An incomplete grade ("I") indicates that the 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 work for which the "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. Students with more than one "I" grade cannot progress in the program. Time extension requests for removal of an "I" grade must be submitted to and approved by the Dean of College of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines in the Graduate Catalog will be converted to an "F."

## **Nursing Program Information**

#### Admissions Requirements

#### Admission requirements for the joint DNP program are as follows:

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

#### 1. BSN-DNP applicants:

A bachelor's degree in nursing is required;

For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;

#### 2. MSN-DNP applicants (4 options)

1. Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.;

OR

2. Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience;

OR

3. Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience;

OR

4. For the MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;

**5. NOTE:** All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.

3. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;

4. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;

5. Three professional letters of recommendation are required;

6. All applicants will participate in an interview;

7. All applicants will be required to complete a personal statement with the application addressing why you want to go to graduate school and why this program would be a good fit with your career goals. The personal statement must also address the following questions: What current trend(s) in healthcare do you find the most concerning or compelling? What in our education and/or professional practice has prepared you to address the identified trend(s)? How do you think you will be able to impact the trend(s) you identified, in your new role when you have completed your graduate study? Use at least two scholarly references and write the essay in American Psychological Associate (APA) format. The writing must be your own work; and

8. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also forward the additionally required documentation to the appropriate school.

Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample and during the interview, writing ability, professional work experience and achievements, professional honors and awards, interest in rural and

under-served population groups, and quality of references/recommendations. The Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### Student Retention and Progression Criteria

#### **Required GPA**

Students in graduate nursing programs must meet the requirements of the College of Graduate Studies to remain in good standing. An overall grade point average (GPA) of 3.0 (B) or better must be maintained in order to graduate. Only grades of A, B and S are considered satisfactory in the graduate nursing level;
 In addition, a graduate nursing student must achieve a grade of "B" or better in every graduate nursing course. Policies of the College of Graduate Studies for progression will apply.

3. MSN students who earn less than a "B" in a required course will have one opportunity to repeat the course. The course must be repeated at the next available opportunity. Students may only repeat two required courses. The repeated grade and the original grade will be averaged into the student's overall GP A.

4. If a student's cumulative grade point average falls below 3.0, she/he will be placed on academic probation at the end of that semester. Any graduate student placed in probationary Academic Standing at the end of a semester must return to Good Academic Standing by the end of the next enrolled semester. 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.

5. Students whose performance results in a GPA so far below 3.0 as to make it mathematically impossible to attain an overall GP A of 3 .0 after one semester may be subject to dismissal without a probationary term. 6. An incomplete grade ("I") indicates that the 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 work for which the "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. Students with more than one "I" grade cannot progress in the program. Time extension requests for removal of an "I" grade must be submitted to and approved by the Dean of College of Graduate Studies before the allotted time expires. An "I" grade not removed under the guidelines in the Graduate Catalog will be converted to an "F."

#### Academic Probation: Unsatisfactory Performance

When the cumulative GPA falls below 3.0, the graduate student will be placed on academic probation for the following semester. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, his/her home school's Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. No students will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of the second probationary semester a student whose cumulative GPA 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 average GPA of 3.0 after one semester may be subject to dismissal without a probationary term.

#### Dismissal

If the student does not achieve a 3.0 cumulative GPA at the conclusion of one probationary semester, the ETSU or TTU Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. At the end of the second probationary semester a student whose cumulative GPA is still below

3.0 will be dismissed from graduate study. A student will also be dismissed from graduate study if they receive a second grade below "B."

#### Transfer of College Credits

- Students may petition for the transfer of a maximum of nine semester hours of graduate credit from regionally accredited U.S. or approved international institutions, if grades of "B" (or equivalent) or higher were received ("B-" grades do not transfer). The student would follow the existing process for petitioning acceptance of courses.
- 2. Transcripts for students at their school of application will contain all enrolled courses with a notation indicating "(taught by ETSU)" or "(taught by TTU)" under the transcript title for each course. The program of study is presented the same in both graduate catalogs and advising sheets. Students register at their school of application for courses taught at both universities. This procedure negates a course transfer issue with respect to classes taken in this joint program. Because this is a joint program, none of these would be considered transfer credits.
- 3. Grades from other regionally accredited institutions will not be used to compute the grade point average (The transferred ETSU and TTU credits will be included).
- 4. The degree program time limit of seven (7) years for doctoral coursework will begin with the registration date of the first course applied to the degree requirements, including transferred courses.
- Forms for transfer of credit are available on the School of Graduate Studies website www.etsu.edu/gradstud at ETSU and at the College of Graduate Studies website https://www.tntech.edu/graduatestudies/forms at TTU and must have the approved signatures.

#### **Reinstatement**

Students who have been dismissed from the School of Graduate Studies at ETSU or the College of Graduate Studies at TTU for academic reasons may address a written request for reinstatement to the ETSU-TTU DNP Program Coordinator at the school of application. The request should include reasons why the reinstatement should be considered. The DNP Coordinator will review the request for reinstatement along with the Dean and make recommendations to the Dean of the School of Graduate Studies at ETSU and the Dean of the College of Graduate Studies at TTU who will make the final decision on reinstatement.

#### Leave of Absence

If a graduate student plans to take a leave of absence from the joint DNP program, the ETSU College of Nursing's Office of Student Services, the Director of Graduate Programs, and the ETSU-TTU DNP Program Coordinator at ETSU in addition to the Interim Assistant Dean and the ETSU-TTU DNP Program Coordinator at TTU must be notified in writing prior to the planned absence. It is also advised that the student and advisor discuss modifications to the student's program of study as a result of the intended leave of absence.

## Adult-Gerontology Acute Care Nurse Practitioner Program Information (DNP)

#### **General Program Information**

The Doctor of Nursing Practice program offers a terminal professional degree for those who wish to pursue or further their career as an advanced practice nurse focusing on healthcare needs of specific populations.

The ETSU College of Nursing and TTU School of Nursing Joint Program currently offers six concentrations within the degree: Adult/Gerontology Acute Care Nurse Practitioner, Executive Leadership, Family Nurse Practitioner, Pediatric Nurse Practitioner-Primary Care, Psychiatric/Mental Health Nurse Practitioner, and Women's Health Care Nurse Practitioner.

The focus of the Adult-Gerontology Acute Care Nurse Practitioner is to provide healthcare from adolescence to older adults in hospitals and clinic settings focusing on management of clients across acute care settings in collaboration with other members of the healthcare team. Graduates are eligible for the Adult-Gerontology Acute Care Nurse Practitioner national certification examination. Graduates are prepared for employment in varied healthcare settings.

For application terms and deadlines please refer to the Whitson-Hester School of Nursing website.

#### Admission Requirements

Admission requirements for the joint DNP program are as follows:

- a completed application with payment of nonrefundable application fee
- official transcripts of all previous undergraduate and graduate coursework
- a written essay

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

- 1. BSN-DNP applicants:
  - A bachelor's degree in nursing is required;
  - For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;
- 2. MSN-DNP applicants (4 options)
  - Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.; OR
  - Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - For the MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;

**NOTE**: All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.

- 3. All applicants with a cumulative GPA less than 3.2 as reported by their BSN or MSN institution will be required to take the Graduate Record Exam (GRE);
- 4. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;

- 5. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;
- 6. Three letters of recommendation are required: one from the applicant's current (most recent) supervisor, one from a faculty member who has worked directly with the applicant during previous academic study, and one from an individual selected by the applicant;
- 7. All applicants will participate in an interview;
- All applicants will be required to complete a writing sample at the time of the interview describing a problem the applicant has identified in practice that the applicant might explore in the DNP program;
- 9. All applicants must submit a cover letter expressing the applicant's personal goals for doctoral study; and
- 10. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also forward the additionally required documentation to the appropriate school.

The personal interview and time for completing the writing sample will be scheduled by the Joint DNP Admissions Committee. Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample 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 Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### Post-Master's Certificate Requirements

#### <u>Minimal Admission Requirements for Current Advance Practice RN's (Nurse</u> <u>Practitioners)</u>

- Minimum of a Master of Science in Nursing from a regionally accredited college/university and nursing program accreditation
- Current, unencumbered Registered Nurse license
- Current certification as an APRN
- A minimum of 3.0 GPA in the last degree earned
- A minimum of a "B" in the 3 "P's" and these courses must be independent courses and address concepts across the lifespan:
  - Advanced Pathophysiology with general principles applied across the lifespan
  - Advanced Pharmacology including pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad classes of pharmacologic agents
  - Advanced Health Assessment with a lab and includes all human systems, advanced assessment techniques and approaches
- The above courses are available at Tennessee Tech and students can apply for non-degree status to complete these pre-admission requirements

#### Minimal Admission Requirements for Non-Advance Practice RN's

• Non-APRN's holding a minimum of a Master of Science in Nursing are encouraged to apply to the FNP concentration for an evaluation of their transcript to determine placement in the curriculum.

#### Student Retention and Progression Criteria

#### **Required GPA**

The DNP graduate student, to remain in good standing, 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 GPA overall and on the program of study.

#### **Nursing Requirement**

Credit toward a degree objective will be granted for any graduate course in which a grade of A, B, or S is assigned; however, not more than three (3) hours of credit below a B grade is allowed.

If a student's grade is lower than "B," s/he may repeat a course. However, no more than one required course may be repeated. In repeating a course the previous grade as well as the grade earned from the repeated course will be calculated into the subsequent GPA. Students will be dismissed from the program if they do not meet the requirements in this policy.

#### Incomplete (I) Grade

An incomplete grade ("I") indicates that the 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 work for which the "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 an "I" grade must be submitted by the instructor of record to (and approved by) the home school's graduate school Dean before the allotted time expires. An "I" grade not completed within the one year time frame will be converted to an "F."

#### Academic Probation: Unsatisfactory Performance

When the cumulative GPA falls below 3.0, the graduate student will be placed on academic probation for the following semester. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, his/her home school's Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. No students will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of the second probationary semester a student whose cumulative GPA 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 average GPA of 3.0 after one semester may be subject to dismissal without a probationary term.

#### Dismissal

If the student does not achieve a 3.0 cumulative GPA at the conclusion of one probationary semester, the ETSU or TTU Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. At the end of the second probationary semester a student whose cumulative GPA is still below 3.0 will be dismissed from graduate study. A student will also be dismissed from graduate study if they receive a second grade below "B."

## **Executive Leadership in Nursing Program Information**

- General Degree Information
- Admissions Requirements
- Student Retention and Progression Criteria

#### **General Degree Information**

The Doctor of Nursing Practice program offers a terminal professional degree for those who wish to pursue or further their career as an advanced practice nurse focusing on healthcare needs of specific populations. The ETSU College of Nursing and TTU School of Nursing Joint Program currently offers six concentrations within the degree: Adult/Gerontology Acute Care Nurse Practitioner, Executive Leadership, Family Nurse Practitioner, Pediatric Nurse Practitioner-Primary Care, Psychiatric/Mental Health Nurse Practitioner, and Women's Health Care Nurse Practitioner.

The focus of the Executive Leadership concentration prepares the advanced nurse for multidimensional leadership within today's complex healthcare system. Coursework focuses on fiscal management, quality indicators, risk management, information technology, and health care policy.

For application terms and deadlines, please refer to the Whitson-Hester School of Nursing website.

#### BSN-DNP Total Program of Study Credit Hours Executive Leadership

- Core Course Credit Hours: 23 hours
- Concentration Courses Credit Hours: 42 hours
- DNP Project Credit Hours: 12 hours
- Total Program Hours: Executive Leadership Concentration: 77 hours

#### Admissions Requirements

Admission requirements for the joint DNP program are as follows:

- a completed application with payment of nonrefundable application fee
- official transcripts of all previous undergraduate and graduate coursework
- a written essay

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

- 1. BSN-DNP applicants:
  - A bachelor's degree in nursing is required;
  - For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;
- 2. MSN-DNP applicants (4 options)
  - Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.; OR
  - Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR

- Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
- For the MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;

## **NOTE:** All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.

- 3. All applicants with a cumulative GPA less than 3.2 as reported by their BSN or MSN institution will be required to take the Graduate Record Exam (GRE);
- 4. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;
- 5. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;
- Three letters of recommendation are required: one from the applicant's current (most recent) supervisor, one from a faculty member who has worked directly with the applicant during previous academic study, and one from an individual selected by the applicant;
- 7. All applicants will participate in an interview;
- All applicants will be required to complete a writing sample at the time of the interview describing a problem the applicant has identified in practice that the applicant might explore in the DNP program;
- 9. All applicants must submit a cover letter expressing the applicant's personal goals for doctoral study; and
- 10. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also forward the additionally required documentation to the appropriate school.

The personal interview and time for completing the writing sample will be scheduled by the Joint DNP Admissions Committee. Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample 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 Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### Student Retention and Progression Criteria

#### **Required GPA**

The DNP graduate student, to remain in good standing, 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 GPA overall and on the program of study.

#### **Nursing Requirement**

Credit toward a degree objective will be granted for any graduate course in which a grade of A, B, or S is assigned; however, not more than three (3) hours of credit below a B grade is allowed.

If a student's grade is lower than "B," s/he may repeat a course. However, no more than one required course may be repeated. In repeating a course, the previous grade as well as the grade earned from the repeated course will be calculated into the subsequent GPA. Students will be dismissed from the program if they do not meet the requirements in this policy.

#### Incomplete (I) Grade

An incomplete grade ("I") indicates that the 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 work for which the "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 an "I" grade must be submitted by the instructor of record to (and approved by) the home school's graduate school Dean before the allotted time expires. An "I" grade not completed within the one year time frame will be converted to an "F."

#### Academic Probation: Unsatisfactory Performance

When the cumulative GPA falls below 3.0, the graduate student will be placed on academic probation for the following semester. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, his/her home school's Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. No students will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of the second probationary semester a student whose cumulative GPA 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 average GPA of 3.0 after one semester may be subject to dismissal without a probationary term.

#### Dismissal

If the student does not achieve a 3.0 cumulative GPA at the conclusion of one probationary semester, the ETSU or TTU Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. At the end of the second probationary semester a student whose cumulative GPA is still below 3.0 will be dismissed from graduate study. A student will also be dismissed from graduate study if they receive a second grade below "B."

## **Family Nurse Practitioner DNP Program Information**

- General Degree Information
- Admissions Requirements
- Student Retention and Progression Criteria

#### **General Degree Information**

The Doctor of Nursing Practice program offers a terminal professional degree for those who wish to pursue or further their career as an advanced practice nurse focusing on healthcare needs of specific populations. The College of Nursing currently offers four concentrations within the degree: Adult/Gerontology Primary

Care Nurse Practitioner, Executive Leadership, Family Nurse Practitioner, and Psychiatric/Mental Health Nurse Practitioner.

The focus of the Family Nurse Practitioner concentration is patient centered quality care including common and acute illnesses while emphasizing quality of care and health outcomes. The patient population for this concentration is across the lifespan. Graduates will be eligible for the Family Nurse Practitioner National Certification examination. The Family Nurse Practitioner works in collaboration with other members of the healthcare team. Graduates are prepared for employment in varied healthcare settings.

#### **Total Program of Study Credit Hours - Family Nurse Practitioner**

- Core Courses: 23 hours
- Concentration Courses: 48 hours
- DNP Project: 12 hours
- TOTAL Program Credit Hours: Family Nurse Practitioner: 83 hours

#### Admissions Requirements

Admission requirements for the joint DNP program are as follows:

- a completed application with payment of nonrefundable application fee
- official transcripts of all previous undergraduate and graduate coursework
- a written essay

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

- 1. BSN-DNP applicants:
  - A bachelor's degree in nursing is required;
  - For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;
- 2. MSN-DNP applicants (4 options)
  - Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.;
     OR
  - Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - For the MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;

**NOTE:** All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.

- 3. All applicants with a cumulative GPA less than 3.2 as reported by their BSN or MSN institution will be required to take the Graduate Record Exam (GRE);
- 4. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;
- 5. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;
- 6. Three letters of recommendation are required: one from the applicant's current (most recent) supervisor, one from a faculty member who has worked directly with the applicant during previous academic study, and one from an individual selected by the applicant;
- 7. All applicants will participate in an interview;
- All applicants will be required to complete a writing sample at the time of the interview describing a
  problem the applicant has identified in practice that the applicant might explore in the DNP
  program;
- 9. All applicants must submit a cover letter expressing the applicant's personal goals for doctoral study; and
- 10. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also forward the additionally required documentation to the appropriate school.

The personal interview and time for completing the writing sample will be scheduled by the Joint DNP Admissions Committee. Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample 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 Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### **Student Retention and Progression Criteria**

#### **Required GPA**

The DNP graduate student, to remain in good standing, 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 GPA overall and on the program of study.

#### **Nursing Requirement**

Credit toward a degree objective will be granted for any graduate course in which a grade of A, B, or S is assigned; however, not more than three (3) hours of credit below a B grade is allowed.

If a student's grade is lower than "B," s/he may repeat a course. However, no more than one required course may be repeated. In repeating a course, the previous grade as well as the grade earned from the repeated course will be calculated into the subsequent GPA. Students will be dismissed from the program if they do not meet the requirements in this policy.

#### Incomplete (I) Grade

An incomplete grade ("I") indicates that the 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 work for which the "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 an "I" grade must be submitted by the instructor of record to (and approved by) the home school's graduate school Dean before the allotted time expires. An "I" grade not completed within the one year time frame will be converted to an "F."

#### Academic Probation: Unsatisfactory Performance

When the cumulative GPA falls below 3.0, the graduate student will be placed on academic probation for the following semester. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, his/her home school's Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. No students will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of the second probationary semester a student whose cumulative GPA 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 average GPA of 3.0 after one semester may be subject to dismissal without a probationary term.

#### Dismissal

If the student does not achieve a 3.0 cumulative GPA at the conclusion of one probationary semester, the ETSU or TTU Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. At the end of the second probationary semester a student whose cumulative GPA is still below 3.0 will be dismissed from graduate study. A student will also be dismissed from graduate study if they receive a second grade below "B."

## **Family Nurse Practitioner Program Information**

The Family Nurse Practitioner (FNP) Option in the Advanced Practice Concentration of the Master's of Science in Nursing program is designed to prepare nurses to deliver primary health care to families in a variety of settings. Students follow patients through the life cycle utilizing obstetric, pediatric, gynecologic, as well as adult and geriatric primary care diagnostic and management skills.

The scope of practice of the Family Nurse Practitioner is based on a team approach. An interdependent member of the health team, the FNP provides primary care through the following means:

- Documentation of individual and family health history
- Physical assessment
- Diagnostic, therapeutic, and educational care plans
- Collaboration with physicians and other health care professionals
- Referral to appropriate health care providers
- Coordination of health care

Graduates are eligible to take the certifying examination offered by the American Nurses Association and the American Academy of Nurse Practitioners. Graduates find positions in a variety of settings such as outpatient clinics, community health centers, private practice offices, health departments, homeless shelters, chronic care facilities, schools, day care programs, hospices, homes, and acute care settings.

Since opening the MSN, a number of master's prepared nurses have indicated an interest in completing the Family Nurse Practitioner Concentration courses in order to sit for the national certification exam to practice as a Family Nurse Practitioner. In order to be eligible to take the certification exam, students must "successfully complete graduate didactic and clinical requirements of a master's nurse practitioner program

through a formal graduate-level certificate or master's level NP program in the desired area of practice." Establishment of the FNP Certificate program offers a formal program of study to meet this need for students without requiring them to complete a second master's degree.

Constant change in the health system challenges the notion that one nurse can be all things to all people. Nurses with varied education and practice competencies bring different skills to patient care, and they must be able to practice to the fullest potential of these capabilities. To compete as attractive professional destinations, practice environments must recognize and reward these differences by defining nurses' roles, and by utilizing and compensating nurses according to their different educational preparation and competencies. Nurses prepared at the master's level in a variety of advanced practice roles are needed to meet patient needs in a changing health care environment.

#### Post-Master's Certificate Requirements

## Minimal Admission Requirements for Current Advance Practice RN's (Nurse Practitioners)

- Minimum of a Master of Science in Nursing from a regionally accredited college/university and nursing program accreditation
- Current, unencumbered Registered Nurse license
- Current certification as an APRN
- A minimum of 3.0 GPA in the last degree earned
- A minimum of a "B" in the 3 "P's" and these courses must be independent courses and address concepts across the lifespan:
  - o Advanced Pathophysiology with general principles applied across the lifespan
  - Advanced Pharmacology including pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad classes of pharmacologic agents
  - Advanced Health Assessment with a lab and includes all human systems, advanced assessment techniques and approaches
- The above courses are available at Tennessee Tech and students can apply for non-degree status to complete these pre-admission requirements

#### Minimal Admission Requirements for Non-Advance Practice RN's

• Non-APRN's holding a minimum of a Master of Science in Nursing are encouraged to apply to the FNP concentration for an evaluation of their transcript to determine placement in the curriculum.

## **Nursing Education Program Information**

The Nursing Education Certificate program provides a formal program of study for masters prepared nurses interested in obtaining a credential allowing them to teach. The program provides the content necessary to teach nursing students in a specific area of nursing. Once students complete the certificate, they will be eligible to sit for the national certification exam in this area. This certificate is the optimal way for those already holding a masters degree and desiring this specialization to gain marketability without having to complete a second master's degree.

#### Post-Master's Certificate Requirements

• Follow the Graduate School Grading System as published in the TTU Graduate School Catalog. (NOTE: only grades of A, B, and S are considered satisfactory at the graduate nursing level.)

Required GPA: A graduate nursing student is required to maintain a cumulative grade average of at least B (3.0) on all courses taken for degree purposes. Credit toward a degree objective will be granted for any graduate course in which a grade of A, B, or S is assigned; however, not more than six (6) hours of credit below a B grade will be allowed. If a grade of D, U, F, WF, or NF is assigned in a nursing degree-related course, the course must be repeated; and both the original grade and the grade for the repeat will be counted in the cumulative average. A nursing course may be repeated only one (1) time and no more than two (2) nursing courses may be repeated.

## Pediatric Nurse Practitioner - Primary Care Program Information

- General Degree Information
- Admissions Requirements
- Student Retention and Progression Criteria

#### **General Degree Information**

The Doctor of Nursing Practice program offers a terminal professional degree for those who wish to pursue or further their career as an advanced practice nurse focusing on healthcare needs of specific populations. The ETSU College of Nursing and TTU School of Nursing Joint Program currently offers six concentrations within the degree: Adult/Gerontology Acute Care Nurse Practitioner, Executive Leadership, Family Nurse Practitioner, Pediatric Nurse Practitioner-Primary Care, Psychiatric/Mental Health Nurse Practitioner, and Women's Health Care Nurse Practitioner.

The focus of the Pediatric Nurse Practitioner-Primary Care concentration is patient centered quality care including common and acute illnesses while emphasizing quality of care and health outcomes. The patient population for this concentration is children of all ages. Graduates will be eligible for the Pediatric Nurse Practitioner-Primary Care National Certification examination. The Family Nurse Practitioner works in collaboration with other members of the healthcare team. Graduates are prepared for employment in varied healthcare settings.

For application terms and deadlines please refer to the Whitson-Hester School of Nursing website.

#### Admissions Requirements

Admission requirements for the joint DNP program are as follows:

- a completed application with payment of nonrefundable application fee
- official transcripts of all previous undergraduate and graduate coursework
- a written essay

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

- 1. BSN-DNP applicants:
  - A bachelor's degree in nursing is required;
  - For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;

- 2. MSN-DNP applicants (4 options)
  - Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.;
     OR
  - Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - For the MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;

## **NOTE:** All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.

- 3. All applicants with a cumulative GPA less than 3.2 as reported by their BSN or MSN institution will be required to take the Graduate Record Exam (GRE);
- 4. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;
- 5. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;
- Three letters of recommendation are required: one from the applicant's current (most recent) supervisor, one from a faculty member who has worked directly with the applicant during previous academic study, and one from an individual selected by the applicant;
- 7. All applicants will participate in an interview;
- All applicants will be required to complete a writing sample at the time of the interview describing a problem the applicant has identified in practice that the applicant might explore in the DNP program;
- 9. All applicants must submit a cover letter expressing the applicant's personal goals for doctoral study; and
- 10. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also forward the additionally required documentation to the appropriate school.

The personal interview and time for completing the writing sample will be scheduled by the Joint DNP Admissions Committee. Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample 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 Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### Post-Master's Certificate Requirements

## Minimal Admission Requirements for Current Advance Practice RN's (Nurse Practitioners)

- Minimum of a Master of Science in Nursing from a regionally accredited college/university and nursing program accreditation
- Current, unencumbered Registered Nurse license
- Current certification as an APRN
- A minimum of 3.0 GPA in the last degree earned
- A minimum of a "B" in the 3 "P's" and these courses must be independent courses and address concepts across the lifespan:
  - Advanced Pathophysiology with general principles applied across the lifespan
  - Advanced Pharmacology including pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad classes of pharmacologic agents
  - Advanced Health Assessment with a lab and includes all human systems, advanced assessment techniques and approaches
- The above courses are available at Tennessee Tech and students can apply for non-degree status to complete these pre-admission requirements

#### Minimal Admission Requirements for Non-Advance Practice RN's

• Non-APRN's holding a minimum of a Master of Science in Nursing are encouraged to apply to the FNP concentration for an evaluation of their transcript to determine placement in the curriculum.

#### Student Retention and Progression Criteria

#### **Required GPA**

The DNP graduate student, to remain in good standing, 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 GPA overall and on the program of study.

#### **Nursing Requirement**

Credit toward a degree objective will be granted for any graduate course in which a grade of A, B, or S is assigned; however, not more than three (3) hours of credit below a B grade is allowed.

If a student's grade is lower than "B," s/he may repeat a course. However, no more than one required course may be repeated. In repeating a course, the previous grade as well as the grade earned from the repeated course will be calculated into the subsequent GPA. Students will be dismissed from the program if they do not meet the requirements in this policy.

#### Incomplete (I) Grade

An incomplete grade ("I") indicates that the 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 work for which the "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 an "I" grade must be submitted by the instructor of record to (and approved by) the home school's graduate school Dean before the allotted time expires. An "I" grade not completed within the one year time frame will be converted to an "F."

#### Academic Probation: Unsatisfactory Performance

When the cumulative GPA falls below 3.0, the graduate student will be placed on academic probation for the following semester. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, his/her home school's Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. No students will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of the second probationary semester a student whose cumulative GPA 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 average GPA of 3.0 after one semester may be subject to dismissal without a probationary term.

#### Dismissal

If the student does not achieve a 3.0 cumulative GPA at the conclusion of one probationary semester, the ETSU or TTU Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. At the end of the second probationary semester a student whose cumulative GPA is still below 3.0 will be dismissed from graduate study. A student will also be dismissed from graduate study if they receive a second grade below "B."

## Psychiatric/Mental Health Nurse Practitioner Program Information

- General Degree Information
- Admissions Requirements
- Student Retention and Progression Criteria

#### **General Degree Information**

The Doctor of Nursing Practice program offers a terminal professional degree for those who wish to pursue or further their career as an advanced practice nurse focusing on healthcare needs of specific populations. The ETSU College of Nursing and TTU School of Nursing Joint Program currently offers six concentrations within the degree: Adult/Gerontology Acute Care Nurse Practitioner, Executive Leadership, Family Nurse Practitioner, Pediatric Nurse Practitioner-Primary Care, Psychiatric/Mental Health Nurse Practitioner, and Women's Health Care Nurse Practitioner.

The focus of the Psychiatric/Mental Health Nurse Practitioner concentration is to prepare advanced practice nurses to provide comprehensive psychiatric-mental health care across the life span to individuals, groups and families in diverse settings. Graduates are eligible for Psychiatric Mental Health Nurse Practitioner national certification examination. The Psychiatric Mental Health Nurse Practitioner works in collaboration with other members of the healthcare team. Graduates are prepared for employment in varied healthcare settings.

For application terms and deadlines please refer to the Whitson-Hester School of Nursing website.

#### Total Program of Study Credit Hours - Psychiatric Mental Health Practitioner

- Core Courses: 23 hours
- Concentration Courses: 45 hours
- DNP Project: 12 hours
- TOTAL Program of Study Credit Hours: Psychiatric Mental Health Practitioner: 80 hours

#### **Admissions Requirements**

Admission requirements for the joint DNP program are as follows:

- a completed application with payment of nonrefundable application fee
- official transcripts of all previous undergraduate and graduate coursework
- a written essay

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

- 1. BSN-DNP applicants:
  - A bachelor's degree in nursing is required;
  - For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;
- 2. *MSN-DNP* applicants (4 options)
  - Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.;
     OR
  - Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - For the MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;

**NOTE:** All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.

- 3. All applicants with a cumulative GPA less than 3.2 as reported by their BSN or MSN institution will be required to take the Graduate Record Exam (GRE);
- 4. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;
- 5. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;
- 6. Three letters of recommendation are required: one from the applicant's current (most recent) supervisor, one from a faculty member who has worked directly with the applicant during previous academic study, and one from an individual selected by the applicant;
- 7. All applicants will participate in an interview;
- All applicants will be required to complete a writing sample at the time of the interview describing a problem the applicant has identified in practice that the applicant might explore in the DNP program;
- 9. All applicants must submit a cover letter expressing the applicant's personal goals for doctoral study; and
- 10. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also forward the additionally required documentation to the appropriate school.

The personal interview and time for completing the writing sample will be scheduled by the Joint DNP Admissions Committee. Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample 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 Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### Student Retention and Progression Criteria

#### **Required GPA**

The DNP graduate student, to remain in good standing, 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 GPA overall and on the program of study.

#### **Nursing Requirement**

Credit toward a degree objective will be granted for any graduate course in which a grade of A, B, or S is assigned; however, not more than three (3) hours of credit below a B grade is allowed.

If a student's grade is lower than "B," s/he may repeat a course. However, no more than one required course may be repeated. In repeating a course, the previous grade as well as the grade earned from the repeated course will be calculated into the subsequent GPA. Students will be dismissed from the program if they do not meet the requirements in this policy.

#### Incomplete (I) Grade

An incomplete grade ("I") indicates that the 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 work for which the "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 an "I" grade must be submitted by the instructor of record to (and approved by) the home school's graduate school Dean before the allotted time expires. An "I" grade not completed within the one year time frame will be converted to an "F."

#### Academic Probation: Unsatisfactory Performance

When the cumulative GPA falls below 3.0, the graduate student will be placed on academic probation for the following semester. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, his/her home school's Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. No students will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of the second probationary semester a student whose cumulative GPA 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 average GPA of 3.0 after one semester may be subject to dismissal without a probationary term.

#### Dismissal

If the student does not achieve a 3.0 cumulative GPA at the conclusion of one probationary semester, the ETSU or TTU Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. At the end of the second probationary semester a student whose cumulative GPA is still below 3.0 will be dismissed from graduate study. A student will also be dismissed from graduate study if they receive a second grade below "B."

# Women's Health Care Nurse Practitioner Program Information

- General Degree Information
- Admissions Requirements
- Student Retention and Progression Criteria

#### **General Degree Information**

The Doctor of Nursing Practice program offers a terminal professional degree for those who wish to pursue or further their career as an advanced practice nurse focusing on healthcare needs of specific populations. The ETSU College of Nursing and TTU School of Nursing Joint Program currently offers six concentrations within the degree: Adult/Gerontology Acute Care Nurse Practitioner, Executive Leadership, Family Nurse Practitioner, Pediatric Nurse Practitioner-Primary Care, Psychiatric/Mental Health Nurse Practitioner, and Women's Health Care Nurse Practitioner.

The focus of the Women's Health Care Nurse Practitioner concentration is to prepare advanced practice nurses to provide comprehensive health care to meet the unique needs of women in diverse settings. Graduates are eligible for Women's Health Care Nurse Practitioner national certification examination. The Women's Health Care Nurse Practitioner works in collaboration with other members of the healthcare team. Graduates are prepared for employment in varied healthcare settings.

For application terms and deadlines please refer to the Whitson-Hester School of Nursing website.

#### **Admissions Requirements**

Admission requirements for the joint DNP program are as follows:

- a completed application with payment of nonrefundable application fee
- official transcripts of all previous undergraduate and graduate coursework
- a written essay

There are different levels of admission depending upon prior credentials of applicants and whether or not they hold a BSN, MSN, or a BSN and a master's in another discipline. Additional requirements for admission to the DNP program include:

- 1. BSN-DNP applicants:
  - A bachelor's degree in nursing is required;
- For international applicants, a bachelor's degree in nursing or equivalency (for BSN to DNP applicants), or a non-nursing master's degree or equivalency (for MSN to DNP applicants) from a nationally accredited nursing program or comparably recognized non-U.S. institution, with a cumulative grade point average of at least 3.0 on a 4-point scale;
- 2. MSN-DNP applicants (4 options)
  - Certification in the selected nursing specialty for the concentration. For example: Certified FNP for FNP concentration, Certified WHNP in the WHNP concentration, etc.; OR
  - Master's in Nursing in a specialty different than the intended concentrations (WHNP, PNP, ACNP, PMHNP, FNP, Executive Leadership) will require a longer program of study adapted to the previous Master's specialty and nursing experience; OR
  - Non-nursing master's with a BSN from a nationally accredited nursing program will require a longer program of study adapted to the previous Master's specialty and nursing experience;
    - OR
  - For the MSN-DNP, Master's in Nursing with advanced practice registered nurse (APRN) certification (Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist) or master's level nursing administration/ healthcare systems leadership concentration;

**NOTE:** All four MSN options for the Executive Leadership in Nursing concentration require at least one year of experience in a nursing administration role.

- 3. All applicants with a cumulative GPA less than 3.2 as reported by their BSN or MSN institution will be required to take the Graduate Record Exam (GRE);
- 4. Unencumbered licensure as a Registered Nurse in the United States and eligibility for licensure in Tennessee or equivalency for international students;
- 5. All applicants are required to have at least two years of full-time work experience (or equivalent) in nursing as a registered nurse;
- 6. Three letters of recommendation are required: one from the applicant's current (most recent) supervisor, one from a faculty member who has worked directly with the applicant during previous academic study, and one from an individual selected by the applicant;
- 7. All applicants will participate in an interview;
- All applicants will be required to complete a writing sample at the time of the interview describing a problem the applicant has identified in practice that the applicant might explore in the DNP program;
- 9. All applicants must submit a cover letter expressing the applicant's personal goals for doctoral study; and
- 10. All applicants must submit a current resume or vita.

The completed application form and fee, official transcripts of all previous undergraduate and graduate work, essay, documentation of nursing licensure in the United States, MSN certification(where applicable), letters of recommendation and resume or vita must be submitted to the ETSU School of Graduate Studies or the TTU Graduate College, depending upon the applicant's choice. International students must also forward the additionally required documentation to the appropriate school.

The personal interview and time for completing the writing sample will be scheduled by the Joint DNP Admissions Committee. Factors given consideration in the admission decision include: previous grade point average (GPA), clarity of the applicant's selected problem as stated in the writing sample 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 Joint DNP Admissions Committee may recommend admission of a promising applicant who has not met all the admission standards on a conditional basis.

#### Post-Master's Certificate Requirements

# Minimal Admission Requirements for Current Advance Practice RN's (Nurse Practitioners)

- Minimum of a Master of Science in Nursing from a regionally accredited college/university and nursing program accreditation
- Current, unencumbered Registered Nurse license
- Current certification as an APRN
- A minimum of 3.0 GPA in the last degree earned
- A minimum of a "B" in the 3 "P's" and these courses must be independent courses and address concepts across the lifespan:
  - Advanced Pathophysiology with general principles applied across the lifespan
  - Advanced Pharmacology including pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad classes of pharmacologic agents
  - Advanced Health Assessment with a lab and includes all human systems, advanced assessment techniques and approaches
- The above courses are available at Tennessee Tech and students can apply for non-degree status to complete these pre-admission requirements

#### Minimal Admission Requirements for Non-Advance Practice RN's

• Non-APRN's holding a minimum of a Master of Science in Nursing are encouraged to apply to the FNP concentration for an evaluation of their transcript to determine placement in the curriculum.

#### Student Retention and Progression Criteria

#### **Required GPA**

The DNP graduate student, to remain in good standing, 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 GPA overall and on the program of study.

#### Nursing Requirement

Credit toward a degree objective will be granted for any graduate course in which a grade of A, B, or S is assigned; however, not more than three (3) hours of credit below a B grade is allowed.

If a student's grade is lower than "B," s/he may repeat a course. However, no more than one required course may be repeated. In repeating a course, the previous grade as well as the grade earned from the repeated course will be calculated into the subsequent GPA. Students will be dismissed from the program if they do not meet the requirements in this policy.

#### Incomplete (I) Grade

An incomplete grade ("I") indicates that the 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 work for which the "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 an "I" grade must be submitted by the instructor of

record to (and approved by) the home school's graduate school Dean before the allotted time expires. An "I" grade not completed within the one year time frame will be converted to an "F."

#### Academic Probation: Unsatisfactory Performance

When the cumulative GPA falls below 3.0, the graduate student will be placed on academic probation for the following semester. If the student does not achieve a 3.0 cumulative grade point average at the conclusion of one probationary semester, his/her home school's Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. No students will be allowed more than two probationary semesters, whether consecutive or cumulative. At the end of the second probationary semester a student whose cumulative GPA 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 average GPA of 3.0 after one semester may be subject to dismissal without a probationary term.

#### Dismissal

If the student does not achieve a 3.0 cumulative GPA at the conclusion of one probationary semester, the ETSU or TTU Dean of the School of Graduate Studies and appropriate college/departmental/program officials will determine whether the student should be dismissed from graduate study or continued on probation. At the end of the second probationary semester a student whose cumulative GPA is still below 3.0 will be dismissed from graduate study. A student will also be dismissed from graduate study if they receive a second grade below "B."

### **Cooperative Education Courses**

### **Cooperative Education**

#### COOP 5010 - Co-op Off-Campus Assignments

#### Cr. 1.

Prerequisite: The individual must have been a fulltime Tennessee Tech graduate student in good standing the prior term. Selections are made by the employer in conjunction with the Office of Career Services. Co-op assignment is full-time, degree-related employment. One (1) hour credit granted per semester; total work experiences must not exceed 24 months. Credit earned will not decrease the normal minimum requirements of a student's program of study. A written report is required each semester from the student. The student's academic advisor evaluates the report and forwards it to the Office of Career Services. A grade of S (satisfactory) or U (unsatisfactory) will be reported for the student to the Records Office.

#### COOP 5020 - Co-op Off-Campus Assignments

Cr. 1.

Prerequisite: The individual must have been a fulltime Tennessee Tech graduate student in good standing the prior term. Selections are made by the employer in conjunction with the Office of Career Services. Co-op assignment is full-time, degree-related employment. One (1) hour credit granted per semester; total work experiences must not exceed 24 months. Credit earned will not decrease the normal minimum requirements of a student's program of study. A written report is required each semester from the student. The student's

academic advisor evaluates the report and forwards it to the Office of Career Services. A grade of S (satisfactory) or U (unsatisfactory) will be reported for the student to the Records Office.

#### COOP 5030 - Co-op Off-Campus Assignments

#### Cr. 1.

Prerequisite: The individual must have been a fulltime Tennessee Tech graduate student in good standing the prior term. Selections are made by the employer in conjunction with the Office of Career Services. Co-op assignment is full-time, degree-related employment. One (1) hour credit granted per semester; total work experiences must not exceed 24 months. Credit earned will not decrease the normal minimum requirements of a student's program of study. A written report is required each semester from the student. The student's academic advisor evaluates the report and forwards it to the Office of Career Services. A grade of S (satisfactory) or U (unsatisfactory) will be reported for the student to the Records Office.

#### COOP 5040 - Co-op Off-Campus Assignments

#### Cr. 1.

Prerequisite: The individual must have been a fulltime Tennessee Tech graduate student in good standing the prior term. Selections are made by the employer in conjunction with the Office of Career Services. Co-op assignment is full-time, degree-related employment. One (1) hour credit granted per semester; total work experiences must not exceed 24 months. Credit earned will not decrease the normal minimum requirements of a student's program of study. A written report is required each semester from the student. The student's academic advisor evaluates the report and forwards it to the Office of Career Services. A grade of S (satisfactory) or U (unsatisfactory) will be reported for the student to the Records Office.

#### COOP 5070 - Co-op Off-Campus Assignments

#### Cr. 1.

Prerequisite: The individual must have been a fulltime Tennessee Tech graduate student in good standing the prior term. Selections are made by the employer in conjunction with the Office of Career Services. Co-op assignment is full-time, degree-related employment. One (1) hour credit granted per semester; total work experiences must not exceed 24 months. Credit earned will not decrease the normal minimum requirements of a student's program of study. A written report is required each semester from the student. The student's academic advisor evaluates the report and forwards it to the Office of Career Services. A grade of S (satisfactory) or U (unsatisfactory) will be reported for the student to the Records Office.

#### COOP 5080 - Co-op Off-Campus Assignments

#### Cr. 1.

Prerequisite: The individual must have been a fulltime Tennessee Tech graduate student in good standing the prior term. Selections are made by the employer in conjunction with the Office of Career Services. Co-op assignment is full-time, degree-related employment. One (1) hour credit granted per semester; total work experiences must not exceed 24 months. Credit earned will not decrease the normal minimum requirements of a student's program of study. A written report is required each semester from the student. The student's academic advisor evaluates the report and forwards it to the Office of Career Services. A grade of S (satisfactory) or U (unsatisfactory) will be reported for the student to the Records Office.

## **Archived Catalogs - PDF version**

#### Archived PDF Catalogs by Academic Year

REMINDER: The online version of the current catalog is updated as changes are approved by GSEC and is therefore always the most current. The pdf version for any given year is created in July of the respective year and never changed.

- 2018-2019 Graduate Catalog
- 2017-2018 Graduate Catalog
- 2016-2017 Graduate Catalog
- 2015-2016 Graduate Catalog
- 2014-2015 Graduate Catalog
- 2013-2014 Graduate Catalog
- 2012-2013 Graduate Catalog
- 2011-2012 Graduate Catalog
- <u>2010-2011 Graduate Catalog</u>
- <u>2009-2010 Graduate Catalog</u>
- <u>2008-2009 Graduate Catalog</u>
- <u>2007-2008 Graduate Catalog</u>
- <u>2006-2007 Graduate Catalog</u>
- <u>2004-2005 Graduate Catalog</u>
- <u>2002-2004 Graduate Catalog</u>
- <u>2000-2002 Graduate Catalog</u>