

## Graduate Majors, Degrees and Certificate Programs

### The University of Tennessee, Knoxville

#### 2020-2021 Academic Year/Listed by College and Department

Below is a list of all graduate degree programs offered at the University of Tennessee, Knoxville. A degree or certificate is awarded upon completion of a specified program of study in a major field. Degree titles are posted on transcripts and diplomas. Titles of majors and certificates are posted on transcripts. A formally approved subcomponent of a degree program is a concentration. The current *Graduate School Catalog* may be viewed online at <http://tiny.utk.edu/grad-catalog>

DEPARTMENT	MAJOR	DEGREE	CONCENTRATION(s) available GRADUATE CERTIFICATES AVAILABLE
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#### Herbert College of Agriculture

Agricultural Leadership, Education and Communications	Agricultural Leadership, Education and Communications	MS	Agricultural Communications
			Agricultural Education
			Agricultural Leadership
Agricultural and Resource Economics	Agricultural and Resource Economics	MS	Agricultural Economics
			Natural Resource Economics
		Dual MS-MBA	Available with Haslam College of Business
Animal Science	Animal Science	MS	
		PhD	
		Dual MS-DVM	Available with College of Veterinary Medicine
Biosystems Engineering and Soil Science	Biosystems Engineering	MS	
		PhD	Energy Science and Engineering
	Biosystems Engineering Technology	MS	
	Environmental and Soil Science	MS	
Entomology and Plant Pathology	Entomology and Plant Pathology	MS	Bioinformatics and Genomics
			Entomology
			Plant Pathology
	Entomology, Plant Pathology and Nematology	PhD	Bioinformatics, Genomics, & Molecular Interactions
			Organismal biology, ecology, and systematics
			Sustainable Disease & Integrated Pest Management
Food Science	Food Science	MS	
		PhD	Food Chemistry
			Food Microbiology
			Food Processing
			Sensory Science
Forestry, Wildlife and Fisheries	Forestry	MS	Bio-based Products & Wood Science & Technology
	Natural Resources	PhD	Bio-based Products & Wood Science & Technology
			Natural Resource Economics
	Wildlife and Fisheries Science	MS	Wildlife Health
Interdepartmental	Plant, Soil and Environmental Sciences	PhD	Crop Sciences
			Environmental and Soil Sciences
			Horticulture
			Plant Breeding
			Plant Molecular Genetics
			Weed Science
Plant Sciences	Plant Sciences	MS	Crop Sciences
			Horticulture
			Plant Breeding
			Plant Molecular Genetics
			Weed Science

#### College of Architecture and Design

School of Landscape Architecture	Landscape Architecture	MLA	Track 1 (first professional degree track)
			Track 2 (post-professional degree track)
		Dual MLA-MArch	Available with School of Architecture
	Landscape Architecture	MALA	
	Landscape Architecture	MSLA	

School of Architecture	Architecture	MArch	Conservation and Stewardship
			Computational Design and Fabrication
			Sustainable Design
		Urbanism	
		Dual MArch-MLA	Available with School of Landscape Architecture

### College of Arts and Sciences

Anthropology	Anthropology	MA	Archaeology
			Biological Anthropology
			Cultural Anthropology
			Mediterranean Archaeology
		Zooarchaeology	
		PhD	Archaeology
			Biological Anthropology
Cultural Anthropology			
		Graduate Certificate	Disasters, Displacement, and Human Rights
School of Art	Art	MFA	Ceramics
			Painting/Drawing
			Printmaking
			Sculpture
			Time-Based Art
Biochemistry and Cellular and Molecular Biology	Biochemistry and Cellular and Molecular Biology	MS	
		PhD	
Chemistry	Chemistry	MS	Analytical Chemistry
			Environmental Chemistry
			Inorganic Chemistry
			Organic Chemistry
			Physical Chemistry
			Polymer Chemistry
		PhD	Analytical Chemistry
			Chemical Physics (in cooperation with Physics Department)
			Environmental Chemistry
			Inorganic Chemistry
			Organic Chemistry
			Physical Chemistry
Earth and Planetary Sciences	Geology	MS	
		PhD	
Ecology and Evolutionary Biology	Ecology and Evolutionary Biology	MS	Behavior
			Ecology
			Evolutionary Biology
		PhD	Behavior
			Ecology
			Energy Science and Engineering
			Evolutionary Biology
English	English	MA	Literature, Criticism, and Textual Studies
	Creative Writing	MFA	Rhetoric, Writing, and Linguistics
	English	PhD	Creative Writing
			Literature, Criticism, and Textual Studies
			Rhetoric, Writing, and Linguistics
Geography	Geography	MS	
		PhD	

History	History	MA		
		PhD	American History European History	
Interdepartmental/Intercollegiate	Life Sciences	MS	Genome Science and Technology Plant Physiology and Genetics	
		PhD	Genome Science and Technology Plant Physiology and Genetics	
Interdisciplinary Programs		Graduate Certificates	Africana Studies	
			Linguistics	
			Medieval Studies	
			Social Theory	
			Women, Gender, and Sexuality	
Mathematics	Mathematics	MMath		
		MS	Applied Mathematics	
		PhD	Mathematical Biology	
Microbiology	Microbiology	MS		
		PhD		
Modern Foreign Languages and Literatures	French	MA		
	German	MA		
	Spanish	MA		
	Modern Foreign Languages	PhD	First Concentration	
			French	
			German	
			Spanish	
			Second Concentration	
			Applied Linguistics	
			French	
German				
			Italian	
			Latin American Studies	
			Portuguese	
			Russian	
			Spanish	
School of Music	Music	MMusic	Choral Conducting	
			Collaborative Piano	
			Composition	
			Instrumental Conducting	
			Jazz	
			Music Education	
			Music Theory	
			Musicology	
			Performance (Organ, Percussion, Piano, Strings, Voice or Winds)	
		Graduate Certificates	Artist Certificate in Music Music Theory Pedagogy	
Philosophy	Philosophy	MA		
		Dual MA-JD	Available with College of Law	
		PhD		
Physics and Astronomy	Physics	MS	Astrophysics	
			Atomic, Molecular, Optical, and Low Temperature Physics	
			Biophysics	
			Chemical Physics	
			Condensed Matter and Surface Physics	
			Elementary Particle Physics	
			Geophysics	
			Mathematical and Computational Physics	
			Nuclear and Relativistic Heavy Ion Physics	
			Theoretical Physics	

Physics and Astronomy	Physics	PhD	Astrophysics	
			Atomic, Molecular, Optical, and Low Temperature Physics	
			Biophysics	
			Chemical Physics	
			Condensed Matter and Surface Physics	
			Elementary Particle Physics	
			Energy Science and Engineering	
			Mathematical and Computational Physics	
			Nanomaterials	
			Nuclear and Relativistic Heavy Ion Physics	
			Theoretical Physics	
Political Science	Political Science	MA		
		PhD		
		Graduate Certificate	Global Security Studies	
	Public Policy and Administration	MPPA		
		Dual MPPA-JD	Available with College of Law	
Psychology	Psychology	MA	Experimental Psychology General Psychology	
		PhD	Clinical Psychology Counseling Psychology Experimental Psychology	
	Sociology	Sociology	MA	Criminology
				Critical Race and Ethnic Studies
				Environmental Sociology
Political Economy and Globalization				
PhD		Criminology		
Critical Race and Ethnic Studies				
Environmental Sociology				
Political Economy and Globalization				
Theatre	Theatre	MFA	Acting	
			Costume Design	
			Lighting Design	
			Scene Design	
			Sound and Digital Media	

### Haslam College of Business

Accounting and Information Management	Accounting	MAcc	Audit and Controls
			Information Management
			Taxation
Business Analytics and Statistics	Business Analytics	MS	
		Dual MS-MBA	Available with Haslam College of Business
	Management Science	PhD	Analytics
	Statistics	MS	Intercollegiate Graduate Statistics and Data Science
Economics	Economics	MA	
		PhD	
Management & Entrepreneurship	Management & Human Resources	MS	
Interdepartmental	Business Administration	MBA	Consulting
			Business Analytics
			Entrepreneurship and Innovation
			Finance
			<b>MBA Programs for Working Professionals</b>
			Aerospace and Defense MBA
			Physician Executive MBA
		Professional MBA	
		Executive MBA	
		Dual MBA-JD	Available with College of Law
Dual MS-MBA	Available with College of Agricultural Sciences and Natural Resources; Haslam College of Business; and Tickle College of Engineering		
Interdepartmental		Dual MBA-PharmD	Available with UT Health Science Center

Interdepartmental	Business Administration	PhD	Accounting
			Finance
			Strategy, Entrepreneurship and Organizations
			Statistics
Marketing	Business Administration	PhD	Marketing
Supply Chain Management	Business Administration	MBA	Supply Chain Management
	Supply Chain Management	MS	Integrated Supply Chain
			Tri-Continent Supply Chain
	Business Administration	PhD	Supply Chain Management

### College of Communication and Information

Interdepartmental	Communication and Information	MS	Advertising
			Communication Studies
			Journalism and Electronic Media
			Public Relations
		PhD	Strategic and Digital Communication
			Advertising
			Communication Studies
			Information Science
School of Information Sciences	Information Sciences	MS	Journalism and Electronic Media
			Public Relations
		Graduate Certificate	Youth Informatics

### College of Education, Health and Human Sciences

Child and Family Studies	Child and Family Studies	MS	General-Emphasis
			Teacher Licensure (PreK-3)
		PhD	
Educational Leadership and Policy Studies	College Student Personnel	MS	
	Educational Administration	MS	Higher Education Administration
			Instructional Leadership
			<i>(specialization in Leadership Academy)</i>
			<i>(specialization in Online Leadership Studies)</i>
	Education	EdS	Educational Administration
			<i>(specialization in Leadership Academy)</i>
			<i>(specialization in Online Leadership Studies)</i>
	Education	PhD	Leadership Studies in Education
	Educational Leadership	EdD	
Higher Education Administration	PhD		
		Graduate Certificate	Instructional Leadership
Educational Psychology and Counseling	Counseling	MS	Clinical Mental Health Counseling
			School Counseling
	Counselor Education	PhD	
	Education	MS	Instructional Technology
	Education	EdS	School Psychology
	Education	PhD	Learning, Design, and Technology
			Learning Environments and Educational Studies
	Educational Psychology	MS	Adult Education
			Applied Educational Psychology
	Educational Psychology and Research	PhD	Adult Learning
		Applied Educational Psychology	
		Evaluation, Statistics, and Methodology	
School Psychology	PhD		
		Graduate Certificates	Evaluation, Statistics, and Measurement
			Grief, Loss and Trauma
			Online Teaching and Learning
			Qualitative Research Methods in Education
Kinesiology, Recreation, and Sport Studies	Kinesiology	MS	Biomechanics
			Exercise Physiology
			Sport Psychology and Motor Behavior

Kinesiology, Recreation, and Sport Studies	Recreation and Sport Management	MS	Sport Management Therapeutic Recreation
	Kinesiology and Sport Studies	PhD	Kinesiology (specializations in biomechanics; exercise physiology; physical activity epidemiology; sport psychology and motor behavior)
			Sport Studies (specializations in socio-cultural studies; and sport management)
Nutrition	Nutrition	MS	Cellular and Molecular Nutrition
			Clinical Nutrition and Dietetics
			Public Health Nutrition
	Nutritional Sciences	PhD	Available with Department of Public Health
			Cellular and Molecular Nutrition Community Nutrition
Public Health	Public Health	MPH	Community Health Education
			Epidemiology
			Health Policy and Management
			Veterinary Public Health
		Dual MPH-DVM	Available with College of Veterinary Medicine
		Dual MPH-JD	Available with College of Law
		Dual MPH-MS	Available with Department of Nutrition
	Public Health Sciences	PhD	DrPH
			PhD
			Graduate Certificate
Retail, Hospitality, and Tourism Management	Retail, Hospitality, and Tourism Management	PhD	
Theory and Practice in Teacher Education	Teacher Education	MS	<b>Applied Behavior Analysis Concentration</b>
		MS	<b>Educational Studies Concentration</b>
		American Sign Language Education Specialization	
		Art Education Specialization	
		Cultural Studies of Eductnl Fndtns Specialization	
		Edu / Deaf and Hard of Hearing Specialization	
		Elementary Education Specialization	
		English Education Specialization	
		Literacy Education Specialization	
		Mathematics Education Specialization	
		Science Education Specialization	
		Science, Tech, Engr & Math Specialization	
		Social Science Education Specialization	
	Special Education Specialization		
	Teaching and Learning Specialization		
	World Language/ESL Specialization		
Theory and Practice in Teacher Education	Teacher Education	MS	<b>The concentrations listed below are for: Professional Internship Initial Licensure</b>
			Art Education Professional Internship concentration
			ASL Education Professional Internship concentration
			Education of the Deaf and Hard of Hearing Professional Internship concentration
			Elementary Education Professional Internship concentration
			English Education and English as a Second Language Professional Internship concentration
			Mathematics Education Professional Internship concentration
			Mathematics Grades 6-8 Education Professional Internship concentration
			Science Education Professional Internship concentration
			Science Grades 6-8 Education Professional Internship concentration
			Social Sciences Education Professional Internship concentration

Theory and Practice in Teacher Education	Teacher Education	MS	Special Education Professional Internship concentration
	Teacher Education	MS	World Language Education Professional Internship concentration
			<b>Practitioner Concentration</b>
			English as a Second Language specialization
			Math Education specialization
			Science Education specialization
			Special Education specialization
	World Languages specialization		
	Teacher Education	EdS	Educational Technology
			Elementary Education
			English Education
			Literacy Education
			Mathematics Education
			Practitioner
	Science Education		
	Social Science Education		
	Special Education		
	Teaching and Learning		
	World Language/ESL Education		
Theory & Practice in Teacher Ed	Education	PhD	Literacy Studies
			Special Education, Deaf Education, and Interpreter Education
			Teacher Education
		Graduate Certificate	Cultural Studies in Education
			Rehabilitation Counseling for the Deaf
			Urban Education

### Tickle College of Engineering

Chemical and Biomolecular Engineering	Chemical Engineering	MS	
		Dual MS-MBA	Available with Haslam College of Business
		PhD	Energy Science and Engineering
Civil and Environmental Engineering	Civil Engineering	MS	Construction Engineering
			Geotechnical/Materials Engineering
			Public Works Engineering
			Structural Engineering
			Transportation Engineering
			Transportation and Infrastructure Engineering
		Dual MS-MBA	Available with Haslam College of Business
		PhD	Climate Impacts Engineering
			Construction Engineering
			Energy Science and Engineering
	Environmental Engineering		
	Geotechnical/Materials Engineering		
	Public Works Engineering		
	Structural Engineering		
Transportation Engineering			
Water Resources Engineering			
	Environmental Engineering	MS	Water Resources Engineering
		Dual MS-MBA	Available with Haslam College of Business
Electrical Engineering and Computer Science	Computer Engineering	MS	Computer Architecture
			Computer Networks
			Computer Vision
			Cybersecurity
			Data Analytics
			Embedded Systems
			Image Processing
			Information Systems

Electrical Engr & Computer Sci	Computer Engineering	MS	Signal Processing	
			VLSI System Design	
	Computer Engineering	Dual MS-MBA	Available with Haslam College of Business	
		PhD	Computer Architecture	
			Computer Networks	
			Computer Vision	
			Cybersecurity	
			Data Analytics	
			Embedded Systems	
			Energy Science and Engineering	
			Image Processing	
			Information Systems	
			Signal Processing	
			VLSI System Design	
Electrical Engr & Computer Sci	Computer Science	MS	Computational Imaging	
			Computer-Human Interaction	
			Cybersecurity	
			Cyberinfrastructure	
			Data Mining	
			Data Analytics	
			Data Visualization	
			Discrete Optimization	
			High Performance Computing	
			Intelligent Systems and Machine Learning	
			Life Science Applications	
			Software Systems	
			Dual MS-MBA	Available with Haslam College of Business
		Computer Science	PhD	Computational Imaging
	Computer-Human Interaction			
	Cybersecurity			
	Cyberinfrastructure			
	Data Analytics			
	Data Mining			
	Data Visualization			
	Discrete Optimization			
	Energy Science and Engineering			
	High Performance Computing			
	Intelligent Systems and Machine Learning			
	Automotive Manufacturing and Technology			
	Electrical Engineering			MS
			Control Systems	
		Electromagnetics and RF Circuits		
Fire Protection Engineering				
Power Electronics				
Power Systems				
Signal Processing				
Solid-State Electronics				
Dual MS-MBA		Available with Haslam College of Business		
Electrical Engineering		PhD	Automotive Manufacturing and Technology	
			Communications	
			Control Systems	
			Electromagnetics and RF Circuits	
			Energy Science and Engineering	
	Fire Protection Engineering			
	Power Electronics			
	Power Systems			
	Signal Processing			
	Solid-State Electronics			
	Graduate Certificates	Fire Protection Engineering		
	Power and Energy Systems			
	Wide Bandgap (WBG) Power Electronics			

Engineering Fundamentals		Graduate Certificate	Engineering Education	
Industrial and Systems Engineering	Industrial Engineering	MS	Automotive Manufacturing	
			Engineering Management	
			Systems Engineering	
		Dual MS-MBA	Available with Haslam College of Business	
		PhD	Energy Science and Engineering	
Engineering Management				
		Graduate Certificate	Engineering Management	
Interdepartmental	Engineering Science	MS	Aerospace Engineering	
			Biomedical Engineering	
			Civil Engineering	
			Environmental Engineering	
			Flight Test Engineering (UTSI only)	
			Mechanical Engineering	
		Dual MS-MBA	Available with Haslam College of Business	
		PhD	Aerospace Engineering	
			Biomedical Engineering	
			Civil Engineering	
			Energy Science and Engineering	
	Environmental Engineering			
	Mechanical Engineering			
	Reliability and Maintainability Engineering	MS	Aerospace Engineering	
			Biomedical Engineering	
			Chemical Engineering	
			Computer Engineering	
			Electrical Engineering	
			Industrial Engineering	
			Materials Science and Engineering	
			Mechanical Engineering	
			Nuclear Engineering	
Dual MS-MBA		Available with Haslam College of Business		
Graduate Certificates		Reliability and Maintainability Engineering		
		Chemical Engineering		
	Computer Engineering			
Materials Science and Engineering	Materials Science and Engineering	MS	Automotive Materials	
			Nanomaterials	
		Dual MS-MBA	Available with Haslam College of Business	
		PhD	Automotive Materials	
			Energy Science and Engineering	
			Nanomaterials	
Mechanical, Aerospace, and Biomedical Engineering	Aerospace Engineering	MS	Applied Mechanics	
			Systems and Controls	
			Thermal-Fluid Mechanics	
		Dual MS-MBA	Available with Haslam College of Business	
		PhD	Applied Mechanics	
			Energy Science and Engineering	
	Systems and Controls			
			Biomedical Engineering	Thermal-Fluid Mechanics
	MS	Biomechanics		
		Biomedical Systems		
Dual MS-MBA	Available with Haslam College of Business			
PhD	Biomechanics			
	Biomedical Systems			
	Energy Science and Engineering			

	Mechanical Engineering	MS	Applied Mechanics
			Automotive Manufacturing Simulation and Design
			Systems and Controls
			Thermal-Fluid Mechanics
		Dual MS-MBA	Available with Haslam College of Business
		PhD	Applied Mechanics
			Automotive Manufacturing Simulation and Design
			Energy Science and Engineering
			Systems and Controls
		Graduate Certificate	Thermal-Fluid Mechanics
Advanced Manufacturing			
Nuclear Engineering	Medical Physics	MS	
	Nuclear Engineering	MS	Nuclear Safety
			Radiological Engineering
		Dual MS-MBA	Available with Haslam College of Business
		PhD	Energy Science and Engineering
			Nuclear Safety
Graduate Certificates	Medical Physics		
	Nuclear Security Science and Analysis		

### College of Law

	Law	MLSD	
	Law	JD	Advocacy and Dispute Resolution
			Business Transactions
		Dual JD-MA	Available with Department of Philosophy in the College of Arts and Sciences
		Dual JD-MBA	Available with Haslam College of Business
		Dual JD-MPH	Available with Department of Public Health in the College of Education, Health, and Human Sciences
	Dual JD-MPPA	Available with Department of Political Science in the College of Arts and Sciences	
	Law	LLM	
	Graduate Certificate	Legal Studies	

### College of Nursing

	Nursing	MSN	Nurse Anesthesia
			DNP
			Nurse Anesthesia
			Nurse Executive Practice
			Pediatric Primary Care Nurse Practitioner
			Pediatric Primary/Acute Care Dual Nurse Practitioner
			Psychiatric Mental Health Nurse Practitioner
		PhD	
		Graduate Certificates	Family Nurse Practitioner
			Health Policy
			Healthcare Informatics
			Nurse Executive Practice
			Nursing Education
			Pediatric Acute Care Nurse Practitioner
			Psychiatric Mental Health Nurse Practitioner

### College of Social Work

	Social Work	MSSW	Evidence-based Interpersonal Practice
			Organizational Leadership
		DSW	
PhD			

	Social Work	Graduate Certificates	Forensic Social Work
			Gerontology
			Trauma Treatment
			Veterinary Social Work

### College of Veterinary Medicine

	Veterinary Medicine	DVM	
		Dual DVM-MS	Available with Department of Animal Science in the College of Agricultural Sciences & Natural Resources
		Dual DVM-MS	Available with Intercollegiate Comparative and Experimental Medicine Program
		Dual DVM-MPH	Available with Department of Public Health in the College of Education, Health, and Human Sciences
		Dual DVM-PhD	Available with Intercollegiate Comparative and Experimental Medicine Program

### Intercollegiate

Comparative and Experimental Medicine	Comparative and Experimental Medicine	MS	Forensic Odontology
		PhD	
		Dual MS-DVM	Available with College of Veterinary Medicine
		Dual PhD-DVM	Available with College of Veterinary Medicine
Bredesen Center for Interdisciplinary Research and Graduate Education	Data Science and Engineering	PhD	
	Energy Science and Engineering	PhD	

### Minors

College	Department	Minor
Herbert College of Agriculture	Agricultural and Resource Economics	Agricultural and Resource Economics Minor
Herbert College of Agriculture	Entomology and Plant Pathology	Entomology Minor
Herbert College of Agriculture	Entomology and Plant Pathology	Entomology and Plant Pathology Minor
Herbert College of Agriculture	Entomology and Plant Pathology	Plant Pathology Minor
Herbert College of Agriculture	Forestry, Wildlife and Fisheries	Forestry Minor
Herbert College of Agriculture	Interdisciplinary	Watershed Minor
Herbert College of Agriculture	Forestry, Wildlife and Fisheries	Wildlife and Fisheries Science Minor
Herbert College of Agriculture	Forestry, Wildlife and Fisheries	Wildlife Health Minor
Herbert College of Agriculture	Plant Sciences	Plant Sciences
Arts and Sciences	Art	Art History Minor
Arts and Sciences	Interdisciplinary	Interdisciplinary Graduate Minor in Neuroscience
Arts and Sciences	Political Science	Environmental Policy Minor
Haslam College of Business	Business Analytics & Statistics	Intercollegiate Graduate Statistics and Data Science Minor
Education, Health & Human Sciences	Kinesiology, Recreation & Sport Studies	Exercise Physiology Minor
Education, Health & Human Sciences	Nutrition	Nutrition Minor
Education, Health & Human Sciences	Public Health	Epidemiology Minor
Tickle College of Engineering	Electrical Engr and Computer Science	Computer Science Minor
Tickle College of Engineering	Interdisciplinary	Interdisciplinary Graduate Minor in Computational Science