# UNIVERSITY OF NORTH TEXAS OVERVIEW OF DEGREE PROGRAMS

# G. BRINT RYAN COLLEGE OF BUSINESS

### Accounting B.B.A.

The Accounting B.B.A. teaches students how to critically appraise situations, act responsibly and ethically, and become strategic thinkers and problem solvers. **Professional Field Courses include**: Intermediate, Cost Accounting, Professional Development, Accounting Systems, Advanced Accounting Principles, Federal Income Taxation, Auditing—Professional Responsibilities. **Jobs in Accounting**: Bank Loan Officer, Budget Administrator, Financial Aid Officer, Internal Auditors, Management Accountants, Trust Officer. Undergraduate accounting program ranked 17th in the nation for size of faculty by the Public Accounting Report, ranked 12th in the West and 46th in the nation by the Public Accounting Report.

### **Aviation Logistics B.S.**

In the Department of Marketing, Logistics and Operations Management, we provide you with a broader perspective of aviation and logistics than what's available in aviation programs at other universities. The curriculum has been developed in consultation with the Dallas/Fort Worth Roundtable of the Council of Supply Chain Management Professionals, the National Business Aviation Association, the North Central Texas Council of Governments and aviation and aerospace industry professionals. While many aviation programs focus on the operations or manufacturing aspects, our curriculum focuses on the value of integrating aviation and aerospace activities to move people and cargo. We also provide you with a variety of valuable leadership opportunities and hands-on experience through projects and a required internship. **Some Jobs in Aviation Logistics:** Aircraft Manufacturing, Airport Authority, Materials Handling, Instructors, Government/Military, Aerospace/Aviation Software. **Professional Field Courses**: Logistics and Supply Chain Management, Business Transportation Management, Jutroduction to Aviation Industry, Aviation Maintenance Programs, Safety Management Systems, Air Cargo Planning and Control, Air Passenger Planning and Control, Transportation Law, Public Policy and Regulatory Environment, Airport and Infrastructure Planning and Control.

#### **Business Analytics B.B.A.**

More than ever before, companies are seeking business professionals that understand how to translate vast quantities of data into insights which can improve organizational decision making. This interest means excellent opportunities for those that understand business fundamentals as well as data management, data analysis, predictive modeling, artificial intelligence, and big data concepts. The BBA in business analytics degree is a STEM approved degree program in which students gain these and other skills and use advanced computing techniques to extract value from business data. **Professional Field Courses**: Enterprise Apps of Bus Intelligence/Analytics, Management Science, Modeling for Business Intelligence, Introduction to Data Mining, Introduction to Data Warehousing, Analytics for Decision Making. **Career possibilities include**: Business analyst, Business intelligence competency center professional, Business intelligence developer/modeler, Data mining professional, Data scientist, Distribution planner, Market research analyst, Operations research analyst, Production planner, Production scheduler, Quality control analyst.

### **Business Computer Information Systems B.S.**

The modern organization is critically dependent on business computing to manage day-to-day operations. Information systems professionals possess highly sought after skills that enable organizations to leverage computing power to improve organizational performance. Students in the business computer information systems program learn essential business concepts as well as the technical skills necessary to manage corporate computing systems. **Some Jobs in BCIS:** Business Analyst, Computer consultant, Database manager, Network administrator, Security manager, Software programmer, Systems analyst, Systems developer, Trainer, Web developer. **Professional Field Courses:** Object-Oriented Programming for Business, Enterprise-Oriented Programming, Analysis of Business Information Systems, Introduction to Database Applications, Fundamentals of Information Technology Security, Business Data Communications and Networking, Information Technology Management, Web Based Information Technologies.

#### **Business Economics B.B.A.**

Economists devise procedures and use mathematical models to answer real-world questions, such as how long an economic downturn might last or what effects new tax legislation might have on unemployment levels. **Jobs in Business Economics**: Banking, Communications, Energy, Insurance, Investment, Manufacturing, Oil and Gas Extraction, Retailing, Transportation, Utility Industries. **Professional Field Courses**: Intermediate Micro–Theory, Intermediate Macro–Theory, Managerial Economics. Undergraduate business economics program ranked 1st in Texas, 27th in the South and 53rd in the nation by Best-Business-Colleges.com.

### **Business Integrated Studies B.B.A.**

Business Integrated Studies gives you the ability to create a degree program that best suits your individual career interests. This is accomplished by integrating two different business areas offered by the College of Business rather than just choosing one major area.

• International Business

In International Business, you'll enroll in international business courses while honing your foreign language skills through a careful selection of coursework. In addition to completing required courses, you can earn academic credit through select, approved internships and study abroad opportunities. **Business Foundation Courses**: Professional Speaking, Writing, & Presentation, Legal and Ethical Environment of Business, Basic Information Systems, Foundations of Marketing Practice, Business Statistics with Spreadsheets, Finance, Organizational Behavior, Business Policy.

• Sport Entertainment Management (offered exclusively at UNT's New College at Frisco) This program is offered in collaboration with the Dallas Cowboys providing our students unprecedented access to the most valuable sport franchise in the world. Offered exclusively at UNT at Frisco, across from the Dallas Cowboys Headquarters, this program will provide you extraordinary access to the Cowboys and some of the other hottest sports teams in the nation. The core of the program consists of classes that allow you to understand how to manage sport organizations in the 21st century, and focus on building the sport brand, developing corporate partnerships, fan engagement strategies and talent management. We also offer you specific pathways that allow you to specialize in a certain facet of the sport entertainment management industry. You can choose from five specializations to tailor your education and work toward

your specific career goals, including: Community and media relations, Event operations, Hospitality, Merchandising, Sales and marketing

## **Entrepreneurship B.B.A.**

As an Entrepreneurship major, you will spend most of your freshman and sophomore years taking general courses like English History, and Math. Your junior year will revolve around courses that provide an overall understanding of business such a basic Management, Marketing, Accounting and Finance, and Computer Information Systems. As a senior, you'll focus on courses in Entrepreneurship, Strategic Processes, Business Ethics, International Business Operations, Human Resource Management, Operations Management, Organizational Behavior, Complex Organizations, and Managing Team-Based Organizations, among others. Undergraduate entrepreneurship program ranked 5th in the nation for best value by CollegeFactual.com

## Finance B.B.A.

In the Department of Finance, Insurance, Real Estate and Law (FIREL), we teach you how to successfully manage all financial aspects of a firm, understand its regulatory rules and realize how it fits into the financial market. **Some Jobs in Finance**: Budget Analyst, Financial Manager, Comptroller, Cash Manager, Bank Administration and Management. **Our comprehensive curriculum allows you the flexibility to explore areas such as**: Corporate financial management, Corporate law and risk management, Derivative securities, stocks and bonds, Employee benefits programs, Life insurance, Management of financial institutions, Personal financial planning, Real estate investments. Undergraduate finance program ranked 31st in the nation for best value by CollegeFactual.com.

# Logistics and Supply Chain Management B.S.

The Department of Marketing, Logistics, & Operations Management at the University of North Texas is dedicated to providing its students with well-rounded, state-of-the-art education in the modern principles of logistics and allied disciplines. The department prepares its students for a rewarding career in logistics as practitioners and academics, with the help of an innovative curriculum and dynamic programs. **Some Jobs in Logistics:** Air Freight / Aviation, Distribution, Fleet Operations, International Logistics, Ocean Freight / Marine, Production Planning, Quality Control, Railroad, Shipping / Receiving, Trucking, Warehousing. **Professional Field and Supporting Field Courses:** Logistics and Supply Chain Management, Business Transportation Management, Global Alliances/Int'l Supply Chain Mgmt, E-Logistics Supply Chain Management of Projects and Systems, Internship, Advanced Logistics Problems. Undergraduate logistics and supply chain management program ranked 20th in North America by Gartner Inc., ranked 4th in Texas, 14th in the South and 38th in the nation by Best-Business-Colleges.com

### Marketing B.B.A.

The Department of Marketing, Logistics, & Operations Management at the University of North Texas is dedicated to providing its students with well-rounded, state-of-the-art education in the modern principles of marketing and allied disciplines. The department prepares its students for a rewarding career in marketing as practitioners and academics, with the help of an innovative curriculum and dynamic programs. **Professional Field Courses:** Marketing Metrics, Marketing

Research & Analytics, Logistics and Supply Chain Management, Personal Professional Development, Consumer Behavior, Global Marketing Issues and Practices, Product Planning and Brand Management, and Applied Marketing Problems. **Jobs in Marketing:** Market Research, Marketing Coordinator, Analyst, Communications, Business Development, Promotions, Sales Rep. Undergraduate marketing program ranked 6th in the nation by BachelorsDegreeCenter.org.

## **Operations and Supply Chain Management B.B.A.**

Students choosing a professional field in Operations & Supply Chain Management study a wide variety of topics dealing with those activities necessary to design the production process for creating an organization's output, to coordinate the resources required for the creation process, and to control resources utilized in the creation such that the product and/or service conforms to customers" expectations. **Specific topics covered in the OSCM professional field program include**: Product Design, Productivity, Capacity Planning, Process Design, Management of Technology, Facility Location, Facility Layout, Work Systems Design, Production/Operations Planning, Production Scheduling, Purchasing and Materials Management, Inventory Management, Materials Requirements Planning, Maintenance, Quality Assurance, Statistical Process Control, Just-In-Time Management, Total Quality Management, Manufacturing Strategy, and continuous Process Improvement.

## Organizational Behavior and Human Resource Management B.B.A.

As an Organizational Behavior and Human Resource Management (OBHR) major, you will spend most of your freshman and sophomore years taking general courses like English, History, and Math. Your junior year will revolve around courses that provide an overall understanding of business such as the basics of Management, Marketing, Accounting, Finance, and Management Information Systems. As you get into the OBHR Professional Field, you will focus on courses such as, organizational behavior, development of effective business relationships, designing and managing team-based organizations, compensation systems, and international business operations. Undergraduate human resource management program ranked 11th in the nation for best value and 16th in the nation for highest paid graduates by CollegeFactual.com.

### **Real Estate B.B.A.**

UNT is one of the few universities in Texas that offers an undergraduate degree program in Real Estate. In the Department of Finance, Insurance, Real Estate and Law (FIREL), we graduate experts who rent, buy and sell properties for clients or themselves, as well as: Accompany clients to potential property sites, Prepare real estate contracts and work with many related experts, Calculate prospective rates of return, Manage commercial or residential properties. **Some Jobs in Real Estate**: Mortgage, Lending, Commercial Leasing, Brokerage, Analyst, Appraising, Site Locators, Investments. Undergraduate real estate program ranked 3rd in Texas, 24th in the South and 46th in the nation by Best-Business-Colleges.com.

Residential Property Management

The University of North Texas (UNT) Residential Property Management (RPM) Program prepares students for careers in the multifamily housing industry, offering several paths to obtain the skills, knowledge, training, experience, and certification necessary.

# Risk, Insurance and Financial Services B.B.A.

• Financial Planning

With a B.B.A. degree in RIFS in the Financial Planning program, you may find employment as a personal financial planner helping individuals; families and small businesses achieve their financial goals. Students receiving a degree in RIFS in the Financial Planning program are currently eligible to sit for the examination administered by the Certified Financial Planning Board to become a Certified Financial Planner (CFP<sup>®</sup>). **Some Jobs in Financial Services**: Mortgage, Insurance, Risk management, Securities, Claims adjuster, Loan officer, Underwriter, Investment, Financial Advisor, Life Insurance. **Professional Field Courses:** Investments ACCT, Federal Income Taxation, Life Insurance, Comprehensive Financial Planning (Fall only), Estate Planning, Employee Benefit Programs

• Risk and Insurance

Offering insurance course work for over 70 years, the University of North Texas' Risk Management and Insurance (RMI) program is one of the premier programs in the Southwest. With a professional focus on risk and insurance, it offers a comprehensive insurance curriculum, preparing our students for a variety of career possibilities. Many of our students have internships, which also count toward credit hours for our degree plans. In addition to a BBA degree, students can also earn an RMI minor or RMI certificate. The program works closely with the risk management and insurance industry at both the national and regional levels to bring real world experience to the students. **Some Jobs in Insurance**: Underwriting, Claims Services, Agent/Broker, Field Representative, Risk Management, Loss Control Specialist, Cost Containment Specialist, Actuary. **Our curriculum consists of the following seven courses:** Introduction to Risk Management and Insurance, Property/Liability Risk Management and Insurance, Insurance Company Operations, Risk Management, Life Insurance, Estate Planning, Employee Benefit Programs.

# **Business Analytics, M.S.**

The Master of Science with a major in Business Analytics is designed to provide an appropriate base of knowledge for entry into the Data Science, Business Analytics, Data Engineer or Business Intelligence fields. This STEM approved program is intended for those students who desire a strong, specialist degree in business analytics that incorporates a solid understanding of both the application and use of business analytics and technology that underlies and facilitates those applications. **Foundation Courses**: Model Based Business Intelligence, Data Mining, Predictive Analytics and Business Forecasting, Foundations of Database Management.

# Finance M.S.

We offer coursework leading to a Master of Science degree in Finance, which prepares you to be a financial specialist. Courses also are available that apply toward the Master of Business Administration degree with a concentration in Finance or a Doctor of Philosophy degree in Business with a concentration in Finance. **Foundation Courses:** Investment Analysis and Management, Theory and Application of Financial Derivatives, Advanced Topics in Financial Management, Financial Markets and Institutions, International Financial Management.

# **COLLEGE OF EDUCATION**

# Health Promotion B.S.

Health promotion professionals use behavioral and social science theories, leadership skills and health communication to implement health programs and improve individual wellness. These

programs include creative activities for individuals, communities and workplaces. The curriculum explores a wide range of areas including epidemiology, consumer health, health communication and program planning. All students must take a foundation of core classes along with track specific programs: Corporate Health and Community Health. Undergraduate health promotion program ranked 5th in Texas, 31st in the South and 76th in the nation by *Best-Education-Schools.com* 

# Human development and Family Science B.S.

Do you enjoy working with people? Would you like to enhance the quality of life for children, youth, adults or families? The Bachelor of Science in Human Development and Family Science (HDFS) at the University of North Texas prepares students to work in a variety of community and educational settings. The Department of Educational Psychology addresses themes of cognition, behavior and emotion within our society. You can choose from two concentrations:

- Individual and Family Development Across the Lifespan
- Community and Family Services

**Required courses:** Infant and Toddler Intervention and Education, Administration of Programs for Children, Youth and Families, Family Life Education, Foundations of Philanthropy and Nonprofits, Child Welfare Practice and Services.

# **Interdisciplinary Studies B.S.**

The Department of Teacher Education and Administration offers a bachelor's degree in interdisciplinary studies — a program intended to lead to teaching certification in Texas. The College of Education offers prospective teachers a well-designed program that is nationally accredited by the Council for the Accreditation of Educator Preparation. It provides multiple opportunities for field experience in public schools through a collaborative Professional Development School model and an option to become certified for ESL or bilingual education along with a grade-level and/or content-area focus. You can choose from three concentrations:

- Elementary Education
- Middle School Education
- Interdisciplinary Studies

**Bachelor's in interdisciplinary studies (elementary education) program** ranked 12th in the nation by *BachelorsDegreeCenter.org* 

# **Kinesiology B.S.**

Kinesiology is the study of human movement and is a major that's experiencing tremendous growth. People with kinesiology backgrounds are involved in teaching, coaching, athletic training, allied health, ergonomics and health and wellness. With additional training, you could work as a physician assistant, nutritionist, chiropractor, physical or occupational therapist or in another health-related field. All students must take a foundation of core classes along with track specific programs:

- General Non-Certification,
- Athletic Training,
- All-Level Teacher Certification,
- Allied Health Pre-Professional,
- Fitness Leadership Interest.

All Kinesiology majors must take the following courses: Human Anatomy and Physiology I, Human Anatomy and Physiology I Laboratory, Human Anatomy and Physiology II, Human Anatomy and Physiology II Laboratory, Family Life and Human Sexuality, Elementary Probability and Statistics. **Undergraduate kinesiology program** ranked 8th in Texas by *Universities.com* 

# **Recreation, Event and Sport Management B.S.**

A degree in this area prepares you for entry-level positions in all aspects of the sports, special events and recreation services industry. The course structure will enable you to apply theoretical knowledge to practice and to step into an exciting and rewarding career. Core course include: Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions, Evaluation of Recreation, Event and Sport Services, Planning, Designing, Maintaining RESM Facilities and Areas, Economy and Finance in RESM Industries, Marketing in Sport and Recreation Industries. We provide options to study sports management, event management or program management. You can choose from tracks:

- Recreation and Event Management
- Sport and Event Management

# Counseling M.Ed. / M.S.

The graduate Counseling program at the University of North Texas has frequently been ranked among the top counselor preparation programs in the nation and the best in Texas. Our Master of Science and Master of Education degree programs prepare you to work in a variety of counseling settings such as: Business or industry, Community agency, Church, Private practice, and School or university. You can pursue program tracks in school counseling and clinical mental health counseling. Each program meets academic specifications for state certification as a school counselor or licensure as a professional counselor.

- School counseling
- Clinical mental health counseling

**Required courses**: Program Development, Leadership and Ethics in School Counseling, Career Development and Information Resources, Diagnosis and Treatment Planning in Counseling, Advanced Counseling Skills, Essential Skills in Counseling, Practicum in Counseling, Introduction to Play Therapy, Counseling Theories, Internship in Counseling, Group Counseling Theories and Procedures, Appraisal in Child and Adolescent Counseling, Professional School Counseling, Counseling Culturally Diverse Clients, Foundations of Educational Research Methodology, Developmental Processes and Strategies.

Graduate student counseling and personnel services (counseling) program ranked 1st in Texas, 12th among public universities and 14th overall in the nation by U.S. News & World Report

# Curriculum and Instruction M.Ed.

The Master of Education with a major in curriculum and instruction is designed to enhance the knowledge and expertise of practicing teachers, combining theoretical perspectives and researchbased practice with multiple opportunities for field-based projects and action research. Its goal is to support teachers as they assume leadership roles at the campus and district levels. The program includes course work related to curriculum and instruction in one or more academic resource areas, such as mathematics education, content area teaching, literacy education, early childhood studies, school administration, gifted and talented education, technology, diversity, English as a second language, bilingual education, counseling, and special education. **Core courses**: Schooling in a Multicultural Society, Curriculum Development, Advances in Teaching, Research in Classroom Settings.

## **Educational Psychology M.S.**

The Department of Educational Psychology (EPSY) addresses themes of cognition, behavior, and emotion within our society by generating research, disseminating knowledge, and preparing a diverse body of scholars who take leadership in their fields while enhancing the development and effective functioning of individuals, schools and families. We aspire to be regionally, nationally and internationally recognized for excellence in producing knowledge, providing service, and preparing scholars and professionals who will be leaders within educational and community settings. Degree programs in educational psychology focus on physical, cognitive and social-emotional growth and change across the lifespan with regard to developmental norms; investigation of interpersonal relationships both inside and outside the family unit; application of knowledge regarding human development and exceptionalities in the educational environment; research, measurement, statistics and program evaluation; assessment of individuals in educational settings; and the needs of special populations with regard to education and intervention.

## **Higher Education M.Ed.**

UNT's higher education program is one of the most established higher education programs in the Southwest. We have graduated more than 1,000 doctoral and master's alumni and many of them are currently holding leadership positions in universities and colleges around the country as well as overseas. The master's degree in higher education prepares students for entry-level and midmanagement positions in higher education administration in areas such as student life, student housing, career centers, multicultural centers, student unions, advancement offices, alumni offices, academic advising centers, international student offices, financial aid offices, dean of student's offices, institutional research offices, and business affairs offices. The student affairs track meets the requirements of the Council for the Advancement of Standards (CAS) for graduate programs in student affairs. The standard master's degree in higher education allows the student to specialize in one of three tracks: student affairs, community college leadership, or general administration. The master's cohort program in college student personnel focuses on student affairs and includes immediate consideration for a graduate assistant position in student affairs or a related area. Higher education core includes: Student Demographics, Cultural Pluralism in Higher Education, Finance and Budgeting in Higher Education, History and Philosophy of Higher Education, Organization and Administration of Higher Education.

# Kinesiology (Physical Education) M.S.

The primary purposes of the program in kinesiology are to provide students with an understanding of basic research methodology; to acquaint students with the professional literature, trends and research being conducted in kinesiology; and to enable students to develop a concentration in exercise physiology, sport and exercise psychology, sport pedagogy/physical education, or sport pedagogy with physical education certification. Career opportunities for graduates are generally found in the private sector with health clubs, wellness centers, corporations, rehabilitation centers, athletic groups and other private groups; or within the teaching profession as teachers, coaches, athletic trainers and administrators. **Kinesiology core** 

**includes**: Motor Behavior, Research Perspectives in Kinesiology, Health Promotion and Recreation, Sport and Exercise Psychology, Quantitative Procedures in Exercise and Sport Sciences, Physiology of Exercise.

## **Recreation, Event and Sport Management M.S.**

The Master of Science degree program with a major in recreation, event and sport management (RESM) is designed to prepare students for management-level positions within the recreation, event and sport management industries, or for further graduate work in recreation, event, or sport. Career opportunities include leadership and management positions in various agencies such as municipal recreation departments, not-for-profit agencies, resorts, military bases, commercial recreation enterprises, sport facilities, schools, state or federal agencies, parks, outdoor education centers, camps, YMCAs, intramural and campus recreation programs, corporations and fitness clubs, and professional and semi-professional sports organizations as well as college athletics. **Core courses include**: Perspectives in Leisure, Management of Recreation and Sport Organizations, Psychosociological Dynamics of Leisure Behavior, Survey Research Design and Analysis, Diversity and Inclusion in Recreation, Event and Sport Management.

## **Special Education M.Ed.**

Our graduate program in Special Education at the University of North Texas strives to make a positive impact on programs for children, youth and young adults with exceptionalities. We offer coursework leading to a Master of Education degree in Special Education and endorsements, certifications and concentrations in: Autism intervention, Educational diagnostics, High Incidence disabilities, Instructional Model to Prepare Adept Certified Teachers in Special Education (IMPACT). Graduates of the program are teachers, diagnosticians, coordinators and supervisors in schools, juvenile correctional facilities, psychiatric hospitals, regional service centers and private or governmental agencies. **Common courses in special education**: Collaboration with Parents, Paraeducators and Professionals, Classroom and Behavior Management Strategies for Exceptional Learners, Special Education Law, Special Education Programs and Practices.

### **Teaching M.Ed.**

The Master's of Education degree in Teaching (MEDT) at the University of North Texas is an innovative program that allows non-education majors to earn a master's degree and teacher certification. The coursework in this program examines the application of theory to instructional practice, classroom organization, curriculum development, public education and successful teaching practices for regular, special education and bilingual learners. Common core requirements: Applying Theory to Teaching Practice, Curriculum Development for Culturally Diverse Learners, Maintaining Classroom Discipline, Literacy Development for English Learners, Literacy for All.

# **COLLEGE OF ENGINEERING**

# **Biomedical Engineering, B.S.**

The College of Engineering at UNT offers a unique undergraduate program in Biomedical Engineering that allows a student of the program to major in Biomedical Engineering, minor in

mathematics and in an additional area of engineering. Thus, a student graduating from the 120 SCH program will be well rounded and have the engineering skills and expertise to work in industry, hospitals, research institutions or become a motivated entrepreneur. **Required courses include**: Discover Biomedical Engineering, Software for Biomedical Engineers, Biomedical Circuits and Data Acquisition Best Practices, Biomedical Instrumentation I, Biomedical Transport Phenomena, Engineering Measurements from Human Systems, Biomedical Signal Analysis, Introduction to Biomechanics, Biomaterials, Senior Design, Biomedical Modeling. Biomedical engineering program ranked 7th in Texas and 38th in the South by Best-Engineering-Colleges.com.

### **Computer Engineering, B.S.**

The Bachelor of Science degree with a major in computer engineering is designed for students who wish to specialize in computer hardware, communication systems, digital signal processing, micro-controllers, real-time and embedded systems. The program provides a strong engineering background, with an understanding of the principles and techniques of computing. **Major requirements**: Computer Science, Foundations of Computing, Foundations of Data Structures, Assembly Language and Computer Organization, Signals and Systems, Communications Systems, Principles of Systems Programming, Embedded Systems Design, Reconfigurable Logic, Engineering Ethics, Computer Engineering Design. Computer engineering program ranked 5th in Texas and 45th in the South by Best-Engineering-Colleges.com

## Computer Science, B.S.

The Bachelor of Science degree with a major in computer science is a professional degree designed to prepare the student for a career of further studies in the technology and application of computers. Graduates will: Pursue graduate studies in computer science or related disciplines, and/or a career in a technology field utilizing skills from the computer science areas studied during the undergraduate program. Act responsibly and ethically in their professional conduct and successfully engage in life-long learning. Work effectively in multi-disciplinary teams and exhibit the ability to communicate effectively. Complete professional work assignments that exhibit the ability to design, develop and implement software while applying computer science principles and practices to the solution of real problems. **Major requirements:** Computer Science, Foundations of Computing, Foundations of Data Structures, Assembly Language and Computer Organization, Data Structures and Algorithms, Software Engineering, Principles of Systems Programming, Social Issues in Computing, Algorithms, Software Development Capstone.

# **Electrical Engineering, B.S.**

The Bachelor of Science degree with a major in electrical engineering is an innovative undergraduate program designed to combine the best practices in electrical engineering education. This design- and project-oriented program integrates concepts, analysis, design and development of state-of-the-art electrical and electronic systems. Through course work, students have "learning-to-learn" experiences and work on hands-on design projects every semester. This active learning experience emphasizes knowledge and skills so that students can solve real-world electrical engineering problems. The one-year sequence of business and marketing courses encourages students to develop a global markets outlook. **Major requirements:** Circuit Analysis, Signals and Systems, Digital Logic Design, Engineering Electromagnetics, Electronics,

Computer Organization, Communications Systems. Electrical engineering program ranked 8th in Texas and 48th in the South by Best-Engineering-Colleges.com

## Information Technology, B.A.

A Bachelor of Arts with a major in information technology provides you with computer science skills while offering more flexibility, fewer math and science requirements, and the opportunity to study a supporting area that can be outside of computer science. Information technology is currently one of the most rapidly growing employment prospects. Graduates will: Pursue graduate studies in information technology, computer science or related disciplines, and/or a career in a technology field utilizing skills from the information technology areas studied during the undergraduate program. Act responsibly and ethically in their professional conduct and successfully engage in lifelong learning. Work effectively in multi-disciplinary teams and exhibit the ability to communicate effectively. Complete professional work assignments that exhibit the ability to design, develop, manage, maintain and implement information systems while applying IT and computing principles and practices to the solution of real problems. Major requirements: Computer Science, Foundations of Computing, Foundations of Data Structures, IT Project Management, Human Computer Interfaces, Internet Programming, Introduction to Computer Networks, Introduction to Computer Security, Principles of Systems Programming, Enterprise Systems Architecture and Design, Social Issues in Computing, Fundamentals of Database Systems, Information Technology Capstone.

## Materials Science and Engineering, B.S.

The Bachelor of Science degree with a major in materials science and engineering is designed to provide students with the fundamental principles of how materials are made, how they behave during application, how their structure and properties are measured and quantified, and how to improve the performance of these materials. This information is then used in "materials-specific" courses and hands-on laboratories where students then learn to apply these principles to the different materials classes, namely, metals, ceramics, polymers, electronic materials and biomaterials. Students also learn about nanotechnology and how it is impacting the materials science and engineering discipline. During their last year, students are required to do a senior project with one of the faculty members who specialize in their primary area of interest. Students work either individually or in small groups on projects that provide them with research experiences that help them determine whether they feel better suited to finish their education and go to industry or continue on to graduate school. The course work instills in students ethical and environmental issues and standards expected by industry and society. Major requirements: Discover How and Why Materials "Matter", Bonding and Structure, Microstructure and Characterization of Materials, Thermodynamics and Phase Diagrams, Transport Phenomena in Materials, Mechanical Properties of Materials, Phase Transformations in Materials, Electrical, Optical and Magnetic Properties of Materials, Materials Processing, Materials Science and Engineering Laboratory, Physical Metallurgy Principles, Ceramic Science and Engineering, Polymer Science and Engineering, Materials Selection and Performance.

# Mechanical and Energy Engineering, B.S.

The Bachelor of Science degree with a major in mechanical and energy engineering follows an interdisciplinary and innovative curriculum that combines essentials of the classical discipline of

mechanical engineering with the deeper knowledge of the dynamic field of energy studies. Thus, the BS degree combines the fundamentals of mechanical engineering with a broad specialization on subjects related to energy production, management, and distribution. The goal of the mechanical and energy engineering department is to provide a curriculum and course of training that will prepare undergraduates not only for today's challenges, but also for future challenges in a fast-paced, global, and diverse society. As a consequence, this program emphasizes the fundamentals, modern methods, processes and technologies of engineering science. It also gives students the tools to learn by themselves and to pursue lifelong learning. Graduates of this program are well-prepared for industry careers and pursuit of advanced engineering degrees. Major requirements: Discover Mechanical and Energy Engineering, Engineering Data Analysis, Thermodynamics, Programming for Mechanical Engineers, Mechanics Manufacturing Processes, Fluid Mechanics, Machine Elements, Heat Transfer, System Dynamics and Control, Mechanical and Energy Engineering Laboratory, Analytical Methods for MEE Engineers, Mechanical and Energy Engineering Systems Design, Capstone Design in Mechanical and Energy Engineering. Mechanical and energy engineering program ranked 8th in Texas and 49th in the South by Best-Engineering-Colleges.com

#### **Biomedical Engineering, M.S.**

With a master's degree in biomedical engineering from UNT, you'll be prepared for an engineering career that solves societal problems, advances technology and improves the quality of life for people everywhere. As a UNT biomedical engineering graduate student, you will have the opportunity to work with world-renowned faculty who are conducting innovative research in biomaterials, biomedical instrumentation, nano-technology and biomechanics. You'll also have the opportunity to collaborate on research projects with faculty members at the UNT Health Science Center in Fort Worth. **Some Required core BMEN courses:** Biomedical Engineering Laboratory, Clinical Instrumentation, Biomedical Engineering Seminar.

#### **Computer Engineering, M.S.**

With a master's degree in Computer Engineering from UNT, you'll be able to work closely with distinguished faculty members to solve complex problems faced by businesses and consumers. The department has a working relationship with local and national companies, and its Industrial Advisory Board is composed of representatives from high-tech firms. **Leveling courses include**: Computing Foundations, Embedded Systems Design, Reconfigurable Logic, Electronics (Devices and Materials).

#### **Computer Science**, M.S.

With a master's degree in Computer Science from UNT, you'll be able to work closely with distinguished faculty members to solve complex problems faced by businesses and consumers. The department has a working relationship with local and national companies, and its Industrial Advisory Board is composed of representatives from high-tech firms. **Leveling courses include:** Computer Science, Computing Foundations, Assembly Language and Computer Organization, Data Structures and Algorithms.

### **Electrical Engineering, M.S.**

The Department of Electrical Engineering at the University of North Texas offers coursework leading to a Master of Science degree in Electrical Engineering. With this degree, you'll be well-positioned for an accomplished career in tomorrow's tech-driven world. With small class sizes, you'll work closely with distinguished faculty members to solve complex problems faced by government, businesses and consumers. You also can take advantage of the invaluable contacts we've developed with leading companies and corporate partners. Our cutting-edge courses and research areas range from artificial intelligence and coding theory to speech-driven facial animation and very-large-scale integration design. **Core courses:** Control Systems Design, Systems Modeling and Simulation, Design and Testing of Digital Systems, Analog Integrated Circuit Design, Digital Signal Processing, Digital Communications. **Electrical engineering program** ranked 8th in Texas and 48th in the South by *Best-Engineering-Colleges.com*.

## Engineering Technology, M.S.

The Department of Engineering Technology at the University of North Texas provides you the opportunity to gain hands-on experience in engineering technology and technical studies and prepares you to design, build, test, operate and maintain a range of systems and processes. Our department is the only one of its kind in the Dallas-Fort Worth area and offers coursework leading to a Master of Science degree in Engineering Technology. **Core courses include:** Construction management concentration, Electrical systems concentration, Engineering management concentration, and Mechanical systems concentration.

## Materials Science and Engineering, M.S.

The Department of Materials Science and Engineering at the University of North Texas offers coursework leading to a Master of Science degree. You'll learn all aspects of modern materials and their characterization including metals, ceramics, polymers and electronic and optical materials. You'll have many opportunities to develop highly marketable skills in areas such as: Aerospace, Automotive, Biomedical Microelectronics, Characterization, Chemical Energy, Environmental, Modeling and simulations, Nanotechnology, Power. **Core courses include:** Thermodynamics of Materials, Bonding, Structure and Crystallography, Mechanical Properties of Materials, Electronic, Optical and Magnetic Materials. **Materials science and engineering program** ranked 5th in Texas, 24th in the South and 74th in the nation by *Best-Engineering-Colleges.com*.

### Mechanical and Energy Engineering, M.S.

The Department of Mechanical and Energy Engineering offers a Master of Science degree in Mechanical and Energy Engineering. We're committed to academic excellence and research in all areas of mechanical and energy engineering. You'll study the fundamentals and applications of engineering and develop life-long learning skills in a research/project-oriented environment. **Required core courses**: Continuum Mechanics, Manufacturing Concepts for Mechanical Engineers, Topics in Mechanical and Energy Engineering, Fundamental Concepts of Materials Science. **Mechanical and energy engineering program** ranked 8th in Texas and 49th in the South by *Best-Engineering-Colleges.com* 

# COLLEGE OF HEALTH AND PUBLIC SERVICE

## **Applied Behavior Analysis B.S.**

People with degrees in Applied Behavior Analysis are competitive for positions in a variety of fields. These jobs generally involve working directly with client populations or helping more experienced behavior analysts with projects and research. You can be credentialed as a Board-Certified Assistant Behavior Analyst, which qualifies you to work in many different settings. **Major requirements**: Behavior Principles, Data Collection and Analysis, Behavior Change Techniques, Survey of Applied Behavior Analysis Literature, Building Skills with Behavior Technology, Functional Analysis and Problem Behavior, Behavior Principles and Self-Management, Organizational Behavior Management, Capstone Course in Applied Behavior Analysis.

## Audiology and Speech-Language Pathology B.S.

A Bachelor of Science with a major in audiology/speech-language gives a person the skills needed to assess and treat people with speech, language and hearing disorders, through a curriculum centered on practical experience. An audiologist assesses and treats people with hearing and balance disorders, while a speech-language pathologist works with those who have communication disorders. Professionals in both areas work with diverse populations in: Clinics, Colleges and universities, Government agencies, Hospitals, Industry and business, Private practice, Public schools. **Major requirements**: Nature of Communication Disorders, Phonetics, Clinical Methods in Audiology and Speech-Language Pathology, Anatomical Bases of Speech and Hearing, Speech and Hearing Sciences, Language Disorders, Basic Rehabilitative Audiology, Neurological Bases of Speech and Hearing.

# **Criminal Justice B.S.**

UNT's Bachelor of Science in Criminal Justice gives you the opportunity to begin or further your career in law enforcement or criminal justice. Our students prepare for challenging careers in public sector law enforcement, corrections, court-related employment, private sector loss prevention and corporate security, and investigative work. Our curriculum educates you in the theoretical, practical and empirical aspects of criminal justice in preparation for your potential career or graduate studies. The course work addresses a wide variety of subjects such as: Criminal justice and public policy, Criminal law and procedure, Criminological theory, Ethical and diversity issues in criminal justice, History of crime and justice in the United States, Police and correctional systems, Research methods. **Major requirements**: Crime and Justice in the United States, Diversity Issues in Criminal Justice, Criminal Law, Police Systems, Correctional Systems, Criminology, Ethical Issues in Criminal Justice, Research Methods in Criminal Justice, Senior Seminar: Criminal Justice and Public Policy.

# **Emergency Administration and Planning B.S.**

The Department of Emergency Management and Disaster Science at the University of North Texas offers the nation's first and most respected Bachelor of Science degree in Emergency Administration and Planning (EADP). Floods, tornadoes, hazardous materials spills, terrorist attacks and epidemics are among the many hazards professionals plan for in this field. Emergency managers help communities build resilience through adequate preparation, wellcoordinated disaster response and sustainable recovery. Graduates typically find careers in government agencies, private businesses and nonprofit or humanitarian organizations. Employment opportunities may be found as a: Business continuity specialist, Corporate risk management director, Disaster coordinator for volunteer organizations, Floodplain manager Hazardous materials specialist, Local, state or federal emergency management officer. **Major requirements**: Introduction to Emergency Management, Practical Methods in Emergency Management, Hazard Mitigation and Preparedness, Disaster Response and Recovery, EOC Design and Operations, Social Vulnerability in Disasters, Capstone Course in Emergency Management.

### Nonprofit Leadership Studies B.S.

This program is designed for students who are looking for opportunities to pursue a professional career serving in the nonprofit sector. An education in Nonprofit Leadership Studies equips students with these core competencies: Administration and nonprofit management principles, Analytical thinking in cross-sector relationships, Financial management and budget analysis, Fundraising and donor cultivation, People management and ethical leadership. Earning a degree in Nonprofit Leadership Studies helps to prepare you for competitive positions in many of the major nonprofits and other local organizations in Texas, including: American Red Cross, Habitat for Humanity, The Humane Society, United Way. **Nonprofit Leadership Studies include**: Foundations of Philanthropy and Nonprofits, Public Management, Negotiation and Dispute Resolution, Leadership Theory and Practice for Volunteer Managers, Introduction to Philanthropy and Applications, Community Development and Collaborative Planning, Volunteer Program Planning and Evaluation, Nonprofit Leadership Capstone, Community Service Internship.

### Public Health B.S.

This degree program prepares students interested in gaining the knowledge to identify, prevent and solve community health problems. Public Health prepares students with knowledge and skills to promote health. It draws on knowledge from the social, behavioral, and health sciences. Our degree program is well suited for student invested in building health communities here in the DFW area, nationally and globally. We are situated in an academic department which promotes interdisciplinary solutions to health issues that affect diverse communities across the lifespan. Public Health coursework incorporates several subject areas such as social, behavioral and health sciences with a specific focus on health promotion. Upon graduating and entering the workforce, you have a variety of professional options within public and private sector organizations to choose from: Community, state and worldwide think tanks, Foundations, Government agencies Health insurance companies, Hospitals. Public health core includes: Introduction to Public Health, Epidemiological Concepts and Methods for Public Health, Research Methods in Public Health, Social Justice and Behavioral Foundations in Public Health, Community Health Education, Environmental Health, Global Public Health, Ethics in Public Health, Biostatistics, Public Health and Health Policy, Public Health Management and Leadership, Public Health Informatics, Public Health Capstone.

### **Rehabilitation Studies B.S.**

Rehabilitation professionals serve individuals who have physical, mental and emotional disabilities and help them become productive and active citizens. The demand for new

professionals is rising every year. Rehabilitation professionals work in: Addiction treatment centers, Hospitals and clinics that treat people with head injuries, Independent-living and other community programs, Programs that serve individuals with intellectual and developmental disabilities, Mental health centers, Probation and parole offices, Veterans Affairs centers. Major requirements: Microcounseling, Disability and Society, Case Management in Rehabilitation, Rehabilitation Service Delivery Systems, Physical and Psychosocial Aspects of Disability, Introduction to Psychiatric Rehabilitation, Assessment in Rehabilitation, Employment Services, Rehabilitation Practicum.

### Social Work B.SW.

The Bachelor of Social Work degree program prepares students for a career in helping vulnerable populations. Students learn the professional skills necessary to assist people in overcoming challenges associated with abuse, poverty, homelessness, addiction, disability, illness, and discrimination. Social workers practice in a variety of areas including health care, child welfare, substance abuse treatment, aging, and criminal justice. Our program will provide you with a solid foundation in the knowledge, skills and values necessary in the social work field and will prepare you for the required state licensing exam. We also offer many opportunities to work with the community, practice skills, get involved in social work organizations and network from the beginning of your studies. As part of our curriculum, we have service learning projects in the introductory courses and practice courses that apply classroom knowledge to real-life situations. **Pre-major courses**: Introduction to Social Work, Policies, Issues and Programs in Social Welfare, Foundations of Interviewing and Interpersonal Skills.

### **Urban Policy and Planning B.A.**

Urban planners play a vital role in designing and creating our communities in Texas, across the nation and around the world. As populations grow, so does the need to develop communities that provide identity, sustainability, service and leisure. A career in urban planning is classified as a "bright outlook occupation" by the U.S. Bureau of Labor Statistics and is currently one of the fastest growing fields in the world. Our program is structured to accommodate students with a seamless transfer to UNT, whether they are coming from a community college or are an incoming freshman. A strong feature of the program is our close affiliations with city governments and planning consulting firms within the Dallas-Fort Worth area. This allows us to provide great opportunities for students to network with local leaders in community development, as well as gain tangible field and work experience. **Major requirements**: Introduction to Geographic Information Systems, Introduction to Urban and Regional Planning, Population Demographics and Urban Planning, Land Use and Transportation Planning, Financial Aspects of Government, Methods in Urban Planning Research and Analysis, Urban Planning Studio, Proposal Writing and Grants Administration, Community Development and Collaborative Planning, Public Policy Analysis.

### **Behavior Analysis M.S.**

Behavior Analysis — the study of the effects of the environment on the behavior of individuals — is a natural science, and its principles are universal. They can be applied with any population, including children with autism, people with developmental disabilities, parents and children, pet owners, college students, healthcare providers, athletes, employers and CEOs. A career in Behavior Analysis will give you many options. Behavior analysts work in a variety of settings, including: Animal shelters, Classrooms, Governmental institutions, Health institutions, Homes Large corporations, Zoos. Our program will teach you about both the experimental analysis of behavior and applied behavior analysis, which will prepare you for either further study in a doctoral program or a career in a variety of settings. Our coursework will give you a broad understanding of behavior principles, but also will allow you to specialize in certain areas. For example, we offer several courses that focus on autism. Our program also will prepare you for certification as a Board-Certified Behavior Analyst.

### **Criminal Justice, Theory and Research M.S**

A Master of Science degree in Criminal Justice from the University of North Texas improves your ability to take informed and thoughtful actions as a scholar, administrator, researcher, police officer, probation officer or caseworker in the criminal justice system. This is accomplished through an exceptional curriculum that provides you with an understanding of the nature and scope of problems posed by crime and the operation and administration of the criminal justice system. You'll examine these areas from theoretical, practical and empirical perspectives. **Required courses**: Criminal Justice Policy, Advanced Criminological Theory, Evaluation and Research Methodologies, Criminal Justice Statistics.

## **Emergency Management and Disaster Science M.S.**

The Master of Science degree in Emergency Management and Disaster Science provides students with in-depth knowledge of diverse theoretical perspectives and empirical research traditions that inform the practice of emergency management. This degree provides a solid academic and practical foundation for those seeking to begin or advance their careers in emergency management or pursue doctoral studies in a hazard-or disaster-related discipline. In addition to taking required courses in emergency management theory, methods and statistics, students may select from a range of electives covering such topics as challenges of disaster response, disaster preparedness and management, community recovery and resilience, and international disasters. **Required courses**: Emergency Management Theory and Practice, Disaster Research Methods, Applied Statistics in Disaster Science.

### Health Services Administration M.S.

The Master of Science with a major in health services administration offers the opportunity for graduates to assume leadership roles in healthcare delivery settings that serve a larger spectrum of the population. This program provides a foundation in health services administration while offering options for a specialized area of expertise. Students may pursue one of a number of concentration areas to customize this professional degree. One concentration in long-term care administration, satisfies the Texas requirements for licensure as a long-term care administrator. The concentration in applied gerontology prepares individuals for alternative careers in administration of community-based services. The rehabilitation services concentration prepares individuals for a leadership role in a health care delivery setting that requires specialized knowledge for effectively working with individuals who have a substance use disorder, disability, or chronic illness. The fourth concentration in health data analytics will develop leaders with skills in data extraction, focused reporting, data modeling and the analysis of big data in the healthcare environment. **Core courses:** Information Systems for Healthcare Management, Health Delivery Systems, Health Services Administration, Theories and Measures

for Health and Wellness, Financial Issues in Health Services Administration, Marketing Health Services, Health Care Law and Ethics, Capstone.

## **Public Administration M.PA**

Graduates of the MPA program enter a wide range of careers in government and the nonprofit sector, and, to a lesser extent, in business. The greatest employment opportunities are in city and county government, primarily because of faculty ties and an extensive alumni network in management positions. A growing number of graduates, however, serve in state and federal government, and in nonprofit organizations. A few serve in administrative positions in other countries. Graduates of the MPA program at UNT work in management positions in such areas as city management, disaster and emergency response, budgeting and finance, human resources, utilities, planning, public safety and public works, evaluation and auditing, and in administrative positions in such nonprofit organizations as Habitat for Humanity, chambers of commerce and the United Way.

# **Rehabilitation Counseling M.S.**

The Master of Science (MS) degree with a major in rehabilitation counseling requires a minimum of 60 semester hours of academic preparation, including a 100-hour practicum and 600-hour internship during the last year of the student's course work. The curriculum combines academic theory and technique courses with hands-on practicum and field-site internship experiences and the program is nationally accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Opportunities for hands-on experiences are also available through the department's Wellness and Employment Lab (UNTWELL). A very high value is placed on the exposure of students to a broad spectrum of rehabilitation services, professional organizations, interdisciplinary professional activities, as well as advocacy and consumer groups in the field of rehabilitation. The core curriculum for the Rehabilitation Counseling program consists of basic preparatory studies in disability, educational and occupational information, counseling, case management, and the vocational rehabilitation process. All graduate students are required to have an approved degree plan developed in consultation with their academic advisor and pass a comprehensive examination or national certification exam (CRC) administered during the last semester of their course work in order to be approved for graduation. Rehabilitation curriculum include: Introduction to Rehabilitation, Rehabilitation in a Multicultural Society, Disability Issues in Human Development, Rehabilitation Counseling Theories, Rehabilitation Counseling Applications, Advanced Counseling Techniques in Rehabilitation Counseling, Group Work and the Rehabilitation Process, Disability and the Family System, Medical and Psychosocial Aspects of Disability. Principles of Psychiatric Rehabilitation and Recovery, Psychopathology in Clinical Rehabilitation Counseling, Alcohol and Other Drug Use Counseling Models, Rehabilitation Assessment, Employment and Career Development, Professional and Ethical Issues in Rehabilitation Case Management, Rehabilitation Research and Program Evaluation, Practicum in Rehabilitation.

# Social Work M.SW.

he Master of Social Work degree with the specialization in advanced generalist practice prepares students with the advanced knowledge and skills to serve in complex practice environments, and to act to promote positive social change and respect for human diversity and the advancement of human rights to benefit the quality of life for individuals, groups, families, organizations and communities. The degree program is dedicated to preparing graduates to apply evidenceinformed knowledge, skills and the values to address complex issues and problems while promoting social and economic justice and working with those who are vulnerable and oppressed. The degree leads to employment opportunities in health care, child and family services, mental health, and other health and human services career fields. **Required Courses**: Human Behavior in the Social Environment, Social Work Practice I Individuals and Systems, Social Work Practice II Organizations and Communities, Social Work Practice, Social Work Research Methods, Social Work Foundation Field Seminar and Field Practicum.

### Speech-Language Pathology M.S

Pursuing a graduate degree in Audiology and Speech-Language Pathology at the University of North Texas prepares you to work effectively with people who have communication disorders. It also advances the discipline through professional, clinical and research activities. We offer course work leading to the Master of Arts or Master of Science degrees in Speech-Language Pathology and a Doctor of Audiology degree. In addition, completing required course work, laboratory training and clinical practicum experiences qualifies you for national certification from the American Speech-Language-Hearing Association and state licensure. You can gain valuable research experience by working with our faculty members on various projects. You'll have access to laboratories for research, clinical treatment rooms, a clinic library, a student workroom and a computer lab. Faculty research areas include: Aphasia, Articulation, Auditory evoked potential, Auditory rehabilitation, Correlates of tinnitus, Hearing technology, Speech perception, Swallowing disorders, Traumatic brain injury, Vocal pathologies.

# **COLLEGE OF INFORMATION**

# Information Science and Applied Technology B.S.

A Bachelor of Science in Information Science and Applied Technology prepares students for skills to act as intermediaries between information and information users applying the latest tools for information organization and access. Graduates work in a diversity of fields including: health informatics, legal informatics and law libraries, bibliographic utilities and networks, and other information dissemination firms. The Bachelor of Science with a major in information science and applied technology is a flexible program offering a wide range of concentrations, including technological fields, making you more marketable. Concentrations or minors chosen by students in this program often become an area of specialization for graduate study. Undergraduate information science program ranked 5th in the nation for best value by CollegeFactual.com

### Learning Technologies B. AS.

A Bachelor of Applied Sciences in Learning Technologies prepares students for a variety of career paths that broadly use tools, techniques, and methods applied by Learning Technology professionals. Coursework focuses on learning strategies that allow students with a natural inclination toward STEM to pursue their passions in applied contexts. **The four (4) required foundations courses include**: Foundations of Learning Technologies in STEM, New Horizons

for Learning Technologies in STEM, Leadership and Ethical Practices for STEM Professionals, Learning Technologies Capstone.

## Linguistics B.A.

A Bachelor of Arts in Linguistics offers students a comprehensive overview of the history of the field and a strong foundation in the core areas of phonetics, phonology, morphology, and syntax, exposing students to the limits and extent of language structure. A major goal of the BA program is to stimulate student curiosity about language and cultural diversity. **Required courses**: The Language of Now: Pop Culture, Technology and Society, Introduction to Linguistics, Language and Society, Discourse Analysis: Talking and Telling, Phonetics and Phonology: The Sound Patterns of Language, Morphology and Syntax, Scientific Methods, Language Data Management: Methods and Tools for Analysis and Dissemination, Senior Capstone Field Experience.

# English as a Second Language M.A

Master of Arts in English as a Second Language offer students broad training in all core areas of the discipline. Our MA programs prepare students for challenging careers in a variety of industries, including government, education, law, bioinformatics, and natural language processing. The MA in ESL specifically prepares students for careers in teaching English as a second and/or foreign language and language arts instruction for K-12 (with additional certification and coursework from the College of Education). **Core courses:** Second Language Acquisition, Bibliography and Methods of Research in Linguistics/ESL, Teaching English as a Second Language, Pedagogical English Grammar, Phonology, Syntax, Practicum in Teaching English as a Second Language.

# Learning Technologies M.S.

A Master of Science in Learning Technologies provides a foundation in learning and educational technologies for the creation, delivery and enhancement of the learning experience. Degree tracks in Instructional Systems (IS), Instructional Systems Technology (IST), Instructional Systems Design (ISD), or Teaching and Learning with Technology (TLT) are offered. The Master's program prepares graduates for dynamic roles in Instructional Technology and Learning Technologies in both academic and corporate settings. This program is aligned with the revised standards published by the International Society for Technology in Education (ISTE). **Core courses:** Instructional Systems Design I, Multimedia in Technology Applications, Analysis of Research in Learning Technologies, Readings Seminar in Learning Technologies.

# Library Science OR Information Science M.S

A Master of Science in Library Science OR Information Science prepares students to succeed in a wide range of library and information science positions including digital image management, librarianship for schools, youths or distributed learning, legal or health informatics, information organization, and information systems. The master's program prepares information professionals for work in a variety of roles and application settings, including all types of libraries and other information agencies. The program rests on a broad conceptual framework that explores the nature of information, its organization and retrieval, and its access and use from the user's viewpoint. In addition, the program prepares individuals who wish to pursue doctoral studies in information science theory, research and practice. **Core courses:** Information and Knowledge Professions, Information Organization, Information Access and Knowledge Inquiry. Graduate library and information studies (library science) program ranked 20th in the nation by U.S. News & World Report

## Linguistics M.A.

A Bachelor of Arts in Linguistics offers students a comprehensive overview of the history of the field and a strong foundation in the core areas of phonetics, phonology, morphology, and syntax, exposing students to the limits and extent of language structure. A major goal of the BA program is to stimulate student curiosity about language and cultural diversity. **Required courses:** The Language of Now: Pop Culture, Technology and Society, Introduction to Linguistics, Language and Society, Discourse Analysis: Talking and Telling, Phonetics and Phonology: The Sound Patterns of Language, Morphology and Syntax, Scientific Methods, Language Data Management: Methods and Tools for Analysis and Dissemination, Senior Capstone Field Experience.

# FRANK W. AND SUE MAYBORN SCHOOL OF JOURNALISM

## Journalism B.A.

Journalism is an exciting, dynamic career critical to the future of an informed and enlightened society. You can make a difference by pursuing a Bachelor of Arts degree in Journalism from the University of North Texas. Upon graduation, you'll be prepared to work in: News and sports reporting, writing, visual journalism (video and still), design and publishing for the Internet, broadcast, newspapers, magazines and books, Advertising in agencies, for-profit and nonprofit organizations and media, Public relations in agencies, corporations, government and nonprofit organizations, Web and desktop publishing, Teaching in secondary schools. A journalism degree with its emphasis on writing and critical thinking can also provide a solid foundation for graduate studies, law school or other corporate professions. The Frank W. & Sue Mayborn School of Journalism offers five concentrations:

- Advertising
- Broadcast/Digital
- Digital/Print
- Photo Journalism
- Public Relations

**Journalism foundation requirements:** Mass Communication and Society, Principles of Advertising and Public Relations, Introduction to Media Writing, Elementary Probability and Statistics. Undergraduate journalism program ranked 12th in the nation for best value by CollegeFactual.com

### Journalism - M.A. / M.J.

The Frank W. and Sue Mayborn School of Journalism at the University of North Texas is synonymous with excellence. We offer the state's only nationally accredited journalism master's program (Master of Journalism and Master of Arts degrees) and have produced some of the nation's top storytellers, including winners of eight Pulitzer Prizes. The program's strength lies in its relevance to the needs of today's media environment and its research opportunities at various levels. With programs in news, strategic communications and narrative and digital journalism, you'll be prepared to work in all communication fields. Fields of study include: Broadcast journalism, Business journalism, Law and journalism, Science, health and environmental journalism, Sports journalism, Visual communications. **Required courses**: Media Studies and Theories, Readings in Mass Communication, Quantitative Research, Qualitative Research, Master's Thesis. Only professionally accredited journalism master's program in Texas, Oklahoma, Arkansas and New Mexico

# COLLEGE OF LIBERAL ARTS AND SOCIAL SCIENCES

# Anthropology B.A.

The Department of Anthropology offers a Bachelor of Arts with a major in anthropology for those who wish to pursue a career in the discipline of anthropology, for those simply interested in the human condition and for those who may wish to combine the study of anthropology with another discipline. Anthropology's focus on understanding cultural diversity makes it a useful subject for people planning careers in areas such as education, business, medicine, and law. **Major requirements**: Culture and Society, Introduction to Physical Anthropology, Archaeological Science, Development of Anthropological Thought, Anthropological Field Methods.

# **Communication Studies B.A.**

Communication (COMM) studies is the study of human communication at large. With a degree in communication studies, our students are able to master communication theories and research, enhance communication skills, and enhance preparation for a variety of different careers or for graduate study. **Communication studies (COMM) courses**: Introduction to Communication, Interpersonal Communication, Performance of Literature, Advocating in Public.

# **Converged Broadcast Media B.A.**

The Bachelor of Arts with a major in Converged Broadcast Media integrates a broad and thorough overview of the ever-changing electronic news media, with intermediate and advanced courses in writing and reporting for radio, television and the Internet; interviewing and performance; shooting and editing for television; television and radio news producing; news media analysis; electronic news management; plus classes in legal and ethical issues and covering cross-cultural communities. **Major requirements include**: Understanding Media Industries, Television Field Production, Electronic Media Programming, Electronic Media Management, Electronic Media Sales, Media Economics, Television News Producing.

# **Economics B.A.**

The Department of Economics helps students develop a clear understanding of how to apply economic theory to real-world policy issues. We administer a rigorous curriculum leading to a Bachelor of Arts with a major in economics. **Major requirements:** Principles of Macroeconomics, Intermediate Micro-Theory, Managerial Economics, Public Economics, The Economics of Health Care, Labor Economics, Open Economy Macroeconomics, Strategic Behavior Across Market Structures, Industrial Organization and Public Policy, The Economics of Sports, Law and Economics, Urban Economics, Introduction to Econometrics, Empirical Linear Modeling.

# English B.A.

The English major is one of the largest in UNT's College of Liberal Arts and Social Sciences. It is widely recognized as a foundational liberal arts degree, preparing students not only for graduate study in literature or creative writing, but for a range of careers - including teaching, the law, publishing, and business - in which the skills of analytical thinking and effective communication are at a premium. English B.A offers four concentrations:

- Creative Writing
- Literature
- Writing and Rhetoric

**Major requirements**: College Writing, Survey of World Literatures from Antiquity to 1700, Survey of World Literatures from 1700 to the Present, Literature, Media and Popular Culture, Gender and Sexuality in Literature, Banned Books and Literary Scandals.

## French B.A.

Programs offered by the Department of World Languages, Literatures and Cultures provide insight into world cultures and languages. You can perfect your French as well as earn a certificate in professional French through immersive study at UNT and abroad. **Major requirements**: Elementary French, Intermediate French, France Today, The Francophone World, Advanced Readings in French, Image of the Artist in France Throughout the Ages, French Phonetics and Pronunciation, Advanced French Conversation, Advanced French Grammar and Composition, Writing in French: Style and Technique, French for Science and Technology.

## **Geography B.A.**

Geography is a diverse discipline that spans the humanities, social sciences and natural sciences, and with opportunities for employment in governmental and non-governmental agencies, education, business and industry. Geography graduates can pursue careers in any number of fields, including: Environmental management, Sustainable development, Urban planning, Education, Alternative energy, Public safety, Public health, International aid, Business logistics, Marketing, Geospatial technology. **Major requirements**: Foundations of Geographic Research, Culture, Environment and Society, Geosystems, Environment and Society, Geography Capstone.

### German B.A.

Programs offered by the Department of World Languages, Literatures and Cultures provide insight into world cultures and languages. You can perfect your German through the study at UNT and abroad. **Major requirements include:** Elementary German, Intermediate German.

### History B.A.

The Department offers courses for the Bachelor of Arts degree with a major in history and for a major in social science with history as a leading subject. Students majoring in other fields may minor in history or take courses for general interest, elective credit, or as part of the Arts and Sciences Core. **Major requirements include**: World History from the Sixteenth Century, United States History to 1865 Each student will choose a focus for his or her advanced course work by taking at least four courses in one of the three groups: Group A (U.S. history), Group B (European/Western history), or Group C (non-Western history).

## Integrative Studies B.A. / B.S.

With an ever-changing global marketplace, many employers desire graduates who have wellrounded educational backgrounds and problem-solving skills. Graduates of the program have entered diverse career fields, such as: Administration, Banking, Counseling, Law, Various entrepreneurial endeavors. The Integrative Studies major empowers you to create a major that best suits your interests and enhances your career objectives. For example, you may prepare for a career in international business by taking foreign language, anthropology and business courses.

## **International Studies, B.A.**

We have one of the Southwest's largest and most advanced undergraduate degree programs. Our degree program provides you a deep understanding of world diversity and can be taken as a major or minor. We offer concentrations in:

- International business and economics
- International development and humanitarian affairs
- International security and diplomacy
- Peace studies
- Regional studies

**Major requirements include**: Introduction to International Studies, Global Development: Issues and Challenges.

### Japanese B.A.

Programs offered by the Department of World Languages, Literatures and Cultures provide insight into world cultures and languages. You can perfect your Japanese as well as earn a certificate of achievement in Japanese through immersive study at UNT and abroad. **Major requirements**: Elementary Japanese, Intermediate Japanese, Advanced Japanese.

### Latino Culture, Economy and Policy B.A.

BA with major in Latino Culture, Economy and Policy (LCEP) examines the politics, history, language, culture, literature, sociology, anthropology, economics, and creative accomplishments of Latinos in the US. This diverse population includes people who trace their heritage to Mexico, Cuba, Puerto Rico, El Salvador, Guatemala, Nicaragua, and many other Latin American and Caribbean nations. **Required courses**: Historical and Cultural Development of the Mexican-American Community, Chicano Literature, Topics in American Government, Latinos in the U.S.

### Media Arts B.A.

Technology is rapidly changing the media landscape. Get the skills you need for a future in the media industries with a Bachelor of Arts degree in Media Arts from the University of North Texas. A Media Arts degree will prepare you for a career in: Corporate, governmental and educational media, Documentary or narrative film production, Live and studio-based television and video production, Radio and audio production, Social media, media marketing and management. **Required courses**: Perspectives on Broadcast, Cable and Internet Technology, Perspectives on Film, Introduction to Media Arts Writing, Introduction to Media Arts Production.

### Philosophy B.A.

We have a complete program of study in the history of Western and non-Western philosophy and religion, including an emphasis on non-western religions and comparative religion. Our course work not only provides insight into the world's cultural heritage but also into every other field of study in the sciences and humanities. In addition, our department focuses specifically on questions concerning the environment, with topics like environmental ethics, environmental policy, and religion and ecology. **Major requirements**: Introduction to Logic, Ancient Philosophy, Modern Philosophy, Metaphysics, Ethical Theory, Philosophy of Technology, Philosophy of Ecology, Philosophy Capstone.

## **Political Science B.A.**

A Bachelor of Arts with a major in political science combines cutting-edge research with awardwinning teaching to ensure your academic and career goals are met. Our courses provide a deep understanding of relevant issues in local, national and international governments. This degree prepares you for careers in government service, politics and private industry in the United States and abroad. You may: Become a lobbyist in Washington, D.C. or Austin, Become a lawyer or judge, Enter the foreign service, State Department or FBI, Work in a citizens' advocacy group. **Major requirements**: US and Texas Constitutions and Institutions, US Political Behavior and Policy, Introduction to Political Research.

## Psychology B.A. / B.S.

A Bachelor of Arts or Bachelor of Science degree in Psychology from the University of North Texas can prepare you for an entry-level position in: Community mental health facilities, Consumer advertising, Market research analysis, Personnel management, Public relations for large corporations. The degree can also prepare you to enter the medical profession, law or a seminary. **Major requirements**: General Psychology, Quantitative Methods, Experimental Methods, History and Systems.

### **Religious Studies B.A.**

We provide the only Religious Studies degree program at a public university in the region. All of the religions examined are treated equally, encouraging open, thought-provoking dialogue among students and faculty members. In addition, you gain a thorough understanding of the beliefs, practices and histories of multiple religious traditions and hone your oral and written communication skills. **Major requirements**: Introduction to Religious Studies, Theoretical Approaches, Christianity, Judaism, Islam, South Asian Religions, Religion, Science and the Environment, Religion and History.

### Social Science B.A.

A Bachelor of Arts degree in Social Science from the University of North Texas offers an interdisciplinary approach to 21st century education. This approach allows you to tailor a degree program to your specific needs and career goals. This degree can open the door to a variety of career possibilities including those in: Education, Nonprofit organizations, Governmental agencies, Office administration, Management, Public relations, Marketing, Sales, Mass communication, Social work.

### Sociology B.A. / B.S.

A Sociology degree can prepare you for numerous careers in human services and corporations or for an entry-level research job as an interviewer or statistician. You can work as a social worker, career or family counselor, parole or probation officer, or in a community service area. Related careers are available in: Advertising and marketing agencies, manufacturing corporations and consulting firms, Criminal justice organizations, Government agencies, corporations and nonprofit organizations, Hospitals, Religious and youth organizations, Universities and colleges. **Major requirements**: Introduction to Sociology, Sociological Theory, Quantitative Data Collection, Qualitative Data Collection, Quantitative Data Analysis.

# Spanish B.A.

The Spanish section provides insight into world cultures and languages. While perfecting your Spanish, you can consider teacher certification, a certificate in professional Spanish or a minor in another language. There are opportunities for Spanish majors to study abroad. **Major requirements**: Elementary Spanish, Review of Elementary Spanish, Intermediate Spanish.

### Theatre B.A.

The Department of Dance and Theatre provides you a comprehensive understanding of theatre. Through our rigorous curriculum, you'll: Gain practical experience in costuming, stagecraft, stage lighting, stage management and theatrical makeup through laboratory work, Have opportunities to perform lead roles, direct, design and stage manage, Learn how to use your voice and body during performance, Learn how to prepare plays for performance, Study actors, plays and playwrights from Africa, Asia, the Middle East, Europe and North America, Work with faculty members, guest and student directors, and choreographers on productions. We offer concentrations in:

- Design/Tech, B.A.
- General Theatre, B.A.
- Performance, B.A.

# COLLEGE OF MERCHANDISING, HOSPITALITY AND TOURISM

### **Consumer Experience Management, B.S.**

The Consumer Experience Management program prepares graduates for a new standard in meeting customer's expectations and engagement with products and services. Graduates of this program will have a deep understanding of consumer behavior, data analytics, and digital applications that offer insights and strategies for differentiated consumer experiences that are so complete they create loyal advocates for businesses and brands. Major consumer product segments include food, beverage, apparel, home, fashion, beauty, health and wellness, automotive, sporting, media, and electronics. Retail, hospitality, travel, tourism, media, entertainment, sports, and events are examples of consumer services. You have the option to complete this degree entirely at UNT at Frisco. **Required core courses include:** Creating Consumer Experiences, Managing a Diverse Workforce, Consumers in a Global Market, Consumer Analytics and Data Visualization, Visual Merchandising and Promotion, Special Event Management, Global Discovery in Merchandising and Hospitality Management.

# **Digital Retailing, B.S.**

This unique option prepares you to capitalize on retail opportunities both online and in physical stores. Launched in 2002, UNT was the first university to provide the degree. With a focus on e-commerce, you'll see how marketing, social media, digital technology, consumer segments and information architecture can make companies stand out from the crowd. **Graduates of the program pursue careers such as**: E-commerce manager, E-commerce merchandiser, Web analytics specialist, Forecasting and planning specialist, Usability and A/B testing specialist, Search engine optimization/search engine marketing manager, Project manager, Social media manager. **Digital Retailing students take courses** in design architecture, social media, digital retailing analytics, consumer behavior, buying, sourcing, and logistics.

## Home Furnishings Merchandising, B.S.

The Home Furnishings Merchandising Degree at UNT is only one of a very few programs nation-wide that focuses specifically on the myriad of home furnishings products that continually arrive on the market. This multi-billion dollar industry is responsible for the creative, aesthetic and functional outcome of an entire innovative industry that is constantly analyzing information and transforming ideas into products to shape the home environment. A degree in home furnishings merchandising differs from a degree in interior design. In home furnishings merchandising, the curriculum emphasis is on product development, merchandising, and residential aesthetics. As a home furnishings merchandiser, graduates may be involved in creating, developing, sourcing, manufacturing and merchandising products within the broad categories of home furnishings and decorative accessories. **Home furnishings majors take courses** in decorative accessories, estimating, drawing and planning, consumer behavior, buying, sourcing, aesthetics, furniture industry, textiles for home furnishings, and historic furniture.

### Hospitality Management, B.S.

Students earning a Bachelor of Science in Hospitality Management are ready for more than a job – they are ready for success! Our students gain the prestige and all the advantages of a university education: solid academic background, learning laboratories, use of modern technology, and extensive education in all hospitality business skills. Graduates in Hospitality Management are fully prepared to enter high growth global industries with expanding demands for highly skilled, technologically-oriented professionals. Upon graduating with a Bachelor of Science in Hospitality Management, students will be able to: Demonstrate basic knowledge of theoretical constructs pertaining to the hospitality industry, Apply the basic principles of critical thinking and problem solving when examining hospitality management issues, Apply technical aspects of the hospitality industry, Demonstrate professional demeanor, attitude, and leadership needed for managerial positions in the hospitality industry. **Required core courses include:** Hospitality Industry Marketing and Sales, Management of Human Resources in the Hospitality Industry, Hotel Operations. **Hospitality management program** ranked 17th in the nation and 21st in the world by *CEOWORLD Magazine* 

# Merchandising, B.S.

The Merchandising degree at UNT is one of the top merchandising programs in the nation. The program prepares students to critically analyze merchandising strategies related to the planning, development, distribution, and merchandising of fashion-oriented products in consumer-driven markets. **Graduates of the program pursue careers** such as: Buyer for a retail brand,

Product Developer, Store Analyst, Visual Merchandiser, Store management, Merchandise Planner, Brand Manager, Product Manager, Showroom Management. **Merchandising majors take courses** in merchandising, product development, textiles, consumer behavior, buying, global sourcing, trend analysis, brand development, and promotion. **Merchandising program** ranked 7th in the nation by *CampusExplorer.com* 

## Retailing, B.S.

Retail is a critical, vibrant global industry experiencing unprecedented change. This paradigm shift requires a workforce with advanced degrees, skills and knowledge to meet the challenges of a globally competitive, complex, and consumer-driven industry. Over 28 million -or one of every four U.S. jobs — is in retail. Retail encompasses analyzing retail business strategies, managing retail store operations, and buying for retail merchandise in an Omni-channel retail environment. A B.S. in Retail degree can help prepare you for many positions including: Retail Merchandise Manager, Retail buyer, Retail operations, Retail Analyst, Retail management, **Retail majors take courses** in operations, retail finance, retail strategies, consumer behavior, retail buying, global sourcing, brand development, and promotion.

## Hospitality Management, M.S.

Students earning a Master of Science degree in Hospitality Management view themselves as global employees who have the core competencies and a global perspective required for effective business interactions. As the industry demand for graduates of hospitality management programs increases, the need for quality education in the field continues to grow. The 36 credit-hour Master of Science degree in Hospitality Management offers an integrated program of study focusing on the management of products, services, and experiences in a consumer-driven global market. **Courses** are taught by knowledgeable and helpful faculty members who are actively involved in research involving hospitality operations, legal and regulatory aspects, marketing of hospitality services, sustainability, curriculum development, information technology, and global consumer issues impacting the hospitality industry. **Master's in hospitality management program** ranked 14th in the nation by CollegeChoice.net

### Merchandising, M.S.

he Master of Science degree in merchandising offers an integrated program of study that prepares students to solve complex problems, create new opportunities in competitive markets, and to understand components that support successful consumer-driven businesses. focusing on the management of products, services, and experiences in a consumer-driven global market. Our program prepared students to become leaders in the global industry as well as scholars in higher education. Effective leaders are developed through core competencies including solving complex problems, generating new knowledge, communicating effectively, and creating new product and business strategies. **Graduate coursework** in research methods, research applications, merchandising strategies, international sourcing, and consumer theory prepare students for careers in industry or higher education. **Merchandising programs** ranked 1st in Texas by *Universities.com* 

# **COLLEGE OF SCIENCE**

## **Biochemistry B.A. / B.S. BC**

The Bachelor of Arts with a major in Biochemistry is a four-year major designed to prepare students to teach sciences at the high school level in the areas of biochemistry, chemistry and biology. Additionally, the program serves well those who wish to go into medicine, dentistry or other biologically related professional programs of study. The program includes advanced coursework in biochemistry, associated credits in biology, physics, and mathematics, plus fulfillment of university and college core curriculum requirements. The BA allows a less structured curriculum with more elective options than the Bachelor of Science in Biochemistry.

Biochemistry B.S. BC is designed for the students planning careers in biochemistry, medicine, clinical chemistry or other health-related areas of chemistry. The program includes advanced coursework in biochemistry, associated credits in biology, physics, and mathematics, plus fulfillment of university and college core curriculum requirements. The BSBC has a more structured curriculum than the Bachelor of Arts in Biochemistry. **Foundation course requirements include**: Biology for Science Majors, Honors Biology for Science Majors, Introductory Biology Research Laboratory, Biology for Science Majors Laboratory, Honors Biology for Science Majors Laboratory, Microbiology.

# Biology B.A. / B.S. BIO.

The Bachelor of Arts with a major in Biology is a four-year degree designed to prepare students for careers in biological sciences and professional programs, including medical school. Program includes coursework in advanced biology, associated requirements in chemistry, physics, and mathematics, plus fulfillment of university and college core curriculum requirements.

The Bachelor of Science with a major in Biology is a four-year degree designed to prepare students for careers in biological sciences and graduate and professional programs, including medical school. Program includes coursework in advanced biology, associated requirements in chemistry, physics and mathematics, plus fulfillment of university and college core curriculum requirements. **Foundation course requirements include**: Biology for Science Majors, Honors Biology for Science Majors, Introductory Biology Research Laboratory, Biology for Science Majors Laboratory, Honors Biology for Science Majors Laboratory, Microbiology.

### Chemistry B.A. / B.S.CHM

The BA in Chemistry is available for students who desire a technical degree in chemistry with a more liberal arts orientation. Students can select from three coursework options that best suit their career goals: (i) students planning to attend graduate school; (ii) students planning a career in chemical industry; or (iii) students who are pre-professional Allied Health major.

The BS in Chemistry degree is certified by the American Chemical Society and is designed primarily for students planning to pursue advanced graduate studies or to seek immediate employment in a private or government chemical laboratory. **Major requirements include**: Organic Chemistry, Organic Chemistry, Quantitative Analysis, Quantitative Analysis Laboratory, Physical Chemistry, Physical Chemistry, Advanced Inorganic Chemistry, Instrumental Analysis.

### **Ecology B.S.**

The Bachelor of Science with a major in Ecology is a four-year degree designed to prepare students for careers in biological sciences and professional programs, focusing on environmental science, conservation and research. Program includes coursework in advanced biology, associated requirements in chemistry, physics and mathematics, plus fulfillment of university and college core curriculum requirements. In addition, the degree requirements include geography, economics, technical writing and philosophy courses. **Foundation course requirements include**: Principles of Ecology, Ecology Laboratory, Biodiversity and Conservation of Animals, Organic Chemistry, Organic Chemistry Laboratory.

## Mathematics B.A. / B.S.MTH

A Bachelor of Arts or Bachelor of Science degree in Mathematics from the University of North Texas can lead to working on important, challenging, real-world problems in business, industry, medicine, government, education and scientific research. With a bachelor's degree you can: Create state-of-the-art techniques for predicting atmospheric reactions and transport of chemical pollution, Design procedures for DNA and protein sequencing, Develop new models for evaluating stock options and pricing derivatives, Improve algorithms for computer-aided aircraft design, Teach math at a private or public school. **Mathematics core includes**: Calculus, Discrete Mathematics, Linear Algebra and Vector Geometry, Multivariable Calculus, Real Analysis.

# Medical Laboratory Sciences B.S.MLS

Medical laboratory scientists perform tests on blood, tissue and body fluids to properly treat illnesses and diseases. Their technical skills may be used in operating and repairing laboratory instruments and monitoring quality control programs. Medical laboratory scientists work in: Blood banks, Coroner offices, Health maintenance organizations, Independent laboratories serving hospitals and physicians, Insurance companies, Laboratories at hospitals or clinics, Pharmaceutical firms, Physician's offices, Research laboratories. **Foundation course requirements:** Biology for Science Majors, Introductory Biology Research Laboratory, Microbiology, General Chemistry for Science Majors, Laboratory Sequence for General Chemistry, Elementary Probability and Statistics.

### Physics B.A. / B.S.PHY

A bachelor's degree in Physics from the University of North Texas can lead to careers investigating these and many other areas important to our daily lives and to understanding the world and universe. Physicists use math, problem solving experience, analytical skills and their imaginations to study the structure and interaction of matter and energy — the way things work. This information is important in: Energy research such as the development of super batteries and solar cells, Medical diagnostics and therapy, Science-enabled education, law practice, technology business and journalism, Semiconductor and photonics technology, Space and atmospheric sciences. **Major requirements include:** Mechanics, General Physics, Electricity and Magnetism, Laboratory in Wave Motion, Electricity, Magnetism and Optics, Modern Physics, Laboratory in Modern Physics, Mechanics, Mathematical Methods in the Physical Sciences, Electronics, Statistical and Thermal Physics, Electricity and Magnetism, Quantum Mechanics.

### Biology M.A. / M.S.

The biology program provides students the option of selecting a research track leading to the Master of Science (MS) with a major in biology, or a non-research track leading to the Master of Arts (MA) with a major in biology. Students interested in obtaining both a master's degree and certification to teach life sciences at the secondary level may select the non-research Master of Science with a major in biology (Teaching in the Life Sciences). Students pursuing a research degree have the opportunity to conduct research leading to a thesis or dissertation in a variety of specializations, including aquatic biology, aquatic toxicology, ecology, forensic biology, genetics, limnology, microbiology, neurobiology, physiology and plant biology.

## Mathematics MA / M.S.

The M.S. degree provides a deeper understanding of mathematical theory and technique for use in a wide variety of academic and non-academic careers. The M.A. degree prepares you to pursue a Ph.D. degree and for careers in college teaching, business and industry. **Required courses**: Real Analysis, Modern Algebra, Selected Topics in Modern Algebra, Topology.

### Physics M.S.

A graduate degree in Physics from the University of North Texas provides you with high-quality instruction, individual attention and access to an array of resources to support your studies and research. The Department of Physics offers coursework leading to a Master of Science or Doctor of Philosophy degree in Physics. A valuable research experience is emphasized, starting at the master's level. You'll work with accomplished and respected faculty members in state-of-the-art research facilities. **Required courses:** Quantum Mechanics, Advanced Classical Mechanics, Electromagnetic Theory, Research Problems in Lieu of Thesis.

# **TOULOUSE GRADUATE SCHOOL**

# **Advanced Data Analytics**

UNT's 30-hour accelerated Master of Science in Advanced Data Analytics provides the breadth and depth of experiences to enable you to succeed in a data-driven business world. You can choose an existing specialization or work with the advisor to develop one that fits your needs. Combining big data analytics, statistical learning and data visualization with real business case studies, this degree will help you apply the latest analytic techniques in your current job or help launch your career in an expanding job market. **Required courses:** Data Mining, Big Data Analytics, Introduction to Data Analytics, Data Analytics, Large Data Visualization, Interdisciplinary Capstone Experience.