Biomedical Engineering

Graduate Programs

The University of North Texas' Department of Biomedical Engineering offers course work leading to:

M.S. programs:

- M.S. in Biomedical Engineering, requiring 30 to 33 hours beyond the bachelor's degree
- Two-year M.S. in Biomedical Engineering with MBA from the G. Brint Ryan College of Business
- Electives: Certification in Health Services Management, offered online by the UNT Health Science Center

New Ph.D. program with two tracks:

- Healthcare Start-up
- Research

Ph.D. programs with a concentration in Biomedical Engineering:

- Electrical Engineering
- Materials Science and Engineering
- Mechanical and Energy Engineering

Our student enrollment is 47% female

New state-of-the-art building with 26,250 square feet of modern classrooms and research labs

Faculty Spotlights

Dr. Melanie Ecker is an Assistant Professor of Biomedical Engineering. Her research interests lie in polymer science and biomedical engineering. She wants to combine both fields to develop biomedical devices, such as conformal and biocompatible neural devices to study the electrophysiology of the enteric nervous system.

Dr. Brian Meckes is an Assistant Professor of Biomedical Engineering. His research interests use nanotechnology to understand the mechanisms of disease and develop therapeutic avenues for treatment by utilizing cell-compatible fabrication techniques to study how cell architecture in combination with mechanical and chemical micro-environments trigger stem cell fate decisions for osteoarthritis and prevention.

Dr. Lin Li is an Assistant Professor of Biomedical Engineering. His research interests combine multi-modality approaches, including functional magnetic resonance imaging, diffusion tensor imaging, and electrophysiology to identify novel biomarkers of neurological disease.

UNT is a Tier One research university located in Denton, TX.
Admission

Ph.D. Program
Our new Ph.D. program offers two tracks: a traditional research track that will help you progress toward your academic career goals and a one-of-a-kind healthcare start-up track that will help you launch that biomedical engineering business. High-achieving students may apply with a bachelor’s or master’s degree in Biomedical Engineering.

Ph.D. Concentrations
If you would like to complement your Ph.D. in Electrical Engineering, Materials Science and Engineering or Mechanical and Energy Engineering, then our programs offering a concentration in Biomedical Engineering may be perfect.

M.S. Program
Our M.S. program is open to high-achieving students from biomedical engineering and related backgrounds like physics, chemistry, and other engineering fields. Leveling courses will be required for applicants with undergraduate degrees other than biomedical engineering. Applicants must provide official transcripts.

Fall applicants should apply by January 15th to be considered for all funding opportunities. Apply and learn more at biomedical.engineering.unt.edu.

Financial Assistance
Teaching and research assistantships provide support for many graduate students. In addition to a monthly stipend, assistantships also qualify students for in-state tuition rates, and many students receive tuition and fee support.

Scholarships are available to graduate students as well. The general scholarship deadline is March 1 of each year. The College of Engineering also offers scholarships to qualified students. Visit financialaid.unt.edu for more information.

Room to Grow
UNT has opened its new $12.6 million biomedical engineering building where glass-walled, open concept labs and classrooms create a transparent and collaborative environment for cutting-edge research and learning. The 26,250-square-foot building is located on UNT’s Discovery Park campus and provides faculty and students with modern classrooms, research labs, facilities for microscopy, cell culture and optics as well as teaching labs and a senior design lab.

The new labs feature hi-tech instruments such as a bio 3D printer that prints cells mimicking human tissue and a 3D virtual dissection table that allows students to delve inside the human body without a scalpel. Inside research labs, faculty investigate exoskeleton technology that may someday help people with limited mobility; develop nanotechnology and optics to diagnose cancer; and biopolymers and flexible bioelectronics that may help doctors deliver medications and manage illnesses.

Research Opportunities
Faculty and students in UNT’s Department of Biomedical Engineering are heavily involved in research and project-based learning initiatives. Some research areas studied in the department include:

- Biopolymers and Flexible Bioelectronics
- Biotechnology
- Medical Imaging
- Electrophysiology
- Micro and Nanoengineering in Medicine
- Nano biomaterials and Nanomedicine
- Biomechanics / Orthopedic Research
- Vital Sign Monitoring
- Exoskeletons

Student Spotlight
“I am continuing my education at UNT with a Master’s degree in biomedical engineering. When I am not in class, I work as a research assistant for Dr. Brian Meckes. We’re currently in the process of obtaining a provisional patent for a past project, an active heating and cooling therapy unit to help athletes ease pain. After I complete my master’s I plan to pursue a career in biomaterials and biomedical implants.”

- Gabriela Bridges, graduate student

Contact Us
bmen.unt.edu
Jaimie.Tesdahl@unt.edu