



# Biomedical Engineering

## Graduate Programs

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

- 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 College of Business
- Electives: Certification in Health Services Management, offered online by the UNT Health Science Center

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

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

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



Our department is **47% female**

## 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.

## Admission

Our MS 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](http://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](http://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.

## Contact Us

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## Research Opportunities

Faculty and students in UNT's Department of Computer Science and 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