Developing clinically translatable solutions for human health by training the next generation of biomedical engineers, cultivating leaders, and nurturing the integration of engineering and medicine in a discovery-centered environment.

Biomedical engineers design diagnostic devices and equipment to detect diseases. They use mathematical and computational skills to analyze actions in the body, such as blood flow, in order to create ventricular assist devices, stents, or artificial organs. Biomedical engineers use advanced computer modeling to develop new drugs used to treat diseases like cancer, cardiovascular disease, diabetes, osteoporosis, and many others.

The Institute for Biomaterials, Drug Delivery, and Regenerative Medicine, led by Dr. Nicholas Peppas, provides a focal point for impactful activities in research, education, and service in biomaterials, drug delivery, and regenerative medicine—key areas in transforming health care. www.ibdr.engr.utexas.edu

After Graduation

30% of our graduates work in the biomedical/biotech industry, often with medical device and pharmaceutical companies, 30% attend medical school, and 40% pursue graduate school.

Statistc Snapshot

UNDERGRADUATE STUDENTS
463 Enrolled
53% Male
47% Female
9% Minorities
71 Valedictorians & Salutatorians
1449 Average SAT score

GRADUATE STUDENTS
86 Enrolled
55% Male
45% Female
9% Minorities
27% International
27% Major Fellowship Recipients

DEGREES AWARDED 2016–2017
65 Bachelor’s degrees
2 Master’s degrees
6 Doctoral degrees

RESEARCH CENTERS AND INSTITUTES
The Center for Cardiovascular Simulation, directed by Dr. Michael Sacks, provides cardiovascular scientists and clinicians with advanced simulations for the rational development of treatments for cardiovascular disease. ccs.ices.utexas.edu

The Center for Computational Oncology, directed by Dr. Thomas Y ankeelov, is involved in research guided by developing a mathematical theory for how cancer initiates, grows, spreads, and responds to treatment.

The Center for Emerging Imaging Technologies, led by Dr. Andrew Dunn, fosters collaborative research on the development and applications of new imaging technologies for biomedical research and clinical medicine. www.ceit.utexas.edu

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RESEARCH AREAS

CELLULAR AND BIOMOLECULAR ENGINEERING
BIOMEDICAL IMAGING AND INSTRUMENTATION
COMPUTATIONAL BIOMEDICAL ENGINEERING AND BIOINFORMATICS
BIOMECHANICS

Research areas

The Biomedical Engineering Department offers the most competitive engineering program at UT Austin. Admitted students to our undergraduate program consistently graduate at the top of their high school classes, with an average class rank of top 3 percent.

updated September 19, 2017
Accomplished biomedical engineer and researcher Dr. Elizabeth Cosgriff-Hernandez joined UT Austin as a full professor.

Dr. Nicholas Peppas was elected to the American Academy of Arts and Sciences.

Dr. Andrew Dunn has been named a Fellow of the Biomedical Engineering Society and the recipient of the Edith and Peter O'Donnell Award in Engineering from The Academy of Medicine, Engineering & Science of Texas.

Dr. Shelly Sakiyama-Elbert received the Society for Biomaterials' Clemson Award for Basic Research.

The Cockrell School of Engineering is ranked the No. 10 Best Engineering School in the World. (ARWU)

PATENTS

169 issued to researchers in the last 10 years

RECENT RESEARCH HIGHLIGHTS

Dr. Thomas Milner’s collaboration on the MasSpec Pen, a device that can help surgeons remove every last trace of cancer during surgery.

Dr. Jeanne Stachowiak’s development of a new method to deliver chemotherapy directly and efficiently to individual cells by utilizing new types of nanoparticles, called connectosomes.

Dr. Chong Xie’s development of ultra-flexible, nanoelectronic thread brain probes that are 1,000 times more flexible than conventional probes, don’t form scars. They are ideal for long-term neural recording beneficial to understanding and treating stroke and neurodegenerative disease.

Dr. Jenny Jiang’s development of a new technique to better understand the antibody repertoire response to malaria infection, which could improve vaccine development and design, described in a recent issue of Nature Communications.

Dr. Hyun Jung Kim’s innovative bio-inspired approach to improving treatment of Crohn’s disease and IBD by using human gut-on-a-chip systems to learn more about the gut microbiome.

FACULTY AWARDS

15 AIMBE Fellows
4 AAAS Fellows
3 National Academy of Inventors Members
2 National Academy of Engineering Members
2 National Academy of Medicine Members
1 American Academy of Arts and Sciences Member

RECENT ACCOLADES AND NEWS

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The University of Texas at Austin
Biomedical Engineering
Cockrell School of Engineering

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