

Erik Jonsson School of Engineering and Computer Science

Doctor of Philosophy in Biomedical Engineering



Biomedical engineering involves the application of engineering principles and methods to define and solve problems in medicine and biology. Students choose biomedical engineering to be of service to people, for the challenge of working with living systems, and to apply advanced technology to problems of health care delivery. Biomedical engineering careers can be found in industrial, health care, academic, private laboratory and government settings. The typical biomedical engineer will work in a team environment that may include physical scientists, engineers, clinicians and life scientists.



The objective of the PhD in Biomedical Engineering program is to produce graduates who can identify future applications in the field, analyze current technology capability and synthesize new solutions that extend the state of the art in biomedical applications. Combined expertise in electrical, mechanical and materials engineering, coupled to life sciences platforms will allow graduates to create new tools, processes and implementations that provide solutions to more complex medical and health-related problems. PhD graduates will have the ability to evaluate difficult life sciences-related issues and create solutions of the future.

Program Description

The PhD in Biomedical Engineering requires 75 semester credit hours minimum beyond the baccalaureate degree. For complete admission and degree requirements, view the Graduate Catalog at catalog.utdallas.edu.

Career Opportunities

Graduates of the program seek positions including: Professor, Research and Development Engineer in areas such as bioinstrumentation, biomaterials, biomechanics, tissue engineering or rehabilitation engineering and Consulting Engineer in the public and private sector.

Marketable Skills

Upon successful completion of the PhD in Biomedical Engineering, graduates will be able to enter the workforce with the following skills:

- Proficiency in conducting unique cutting edge research, analyzing results, and presenting findings that contribute new knowledge to the field of medical and biological engineering
- Contribution of knowledge by publishing original research to the body of literature
- Ability to communicate complex research findings to a variety of audiences.
- Synthesis of solutions to healthcare, biological engineering, and biomedical engineering challenges
- Leadership in medical and biological engineering and the healthcare industry
- Mentor and/or teach in the Biomedical Engineering field

Contact Information

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