ABET Biomedical Engineering

Accreditation

The New Jersey Institute of Technology (NJIT) program in Biomedical Engineering is accredited by the Engineering Accreditation Commission of ABET, www.abet.org, under the commission's General Criteria and Program Criteria for Bioengineering and Biomedical and Similarly Named Engineering Programs.

BME Program Educational Objectives

The undergraduate program leads to a Bachelor of Science degree in Biomedical Engineering (BME), producing graduates with the following attributes in their career:

Objective A) Students will be prepared for productive careers in the biomedical engineering field and embark on broad paths in industry (medical device / pharmaceutical / AI as it applies to BME and digital health), professional and graduate education (including medical school and research), or biomedical development, operations, and leadership.

Objective B) As professionals, our alumni will demonstrate the following traits:

1) Integrators: BME graduates will be able to translate and effectively apply their fundamental knowledge of sciences, mathematics, liberal arts, and engineering analysis into actions that add value to industry by solving a wide range of problems and identifying emerging opportunities - especially those related to medicine and biology.
2) Continued professional growth: BME graduates will independently advance their education and skills through professional growth and development opportunities by participation in professional societies, continuing education, or graduate study.
3) Leadership through engagement: BME graduates will engage in leadership and professional service to improve the biomedical field through engagement in local, national, or global communities.

BME Student Outcomes

Students from the BME program will attain (by the time of graduation):

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies