

Annual Report on Program Student Learning Outcomes Assessment

Program: BS in Biomedical Engineering

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List the learning outcomes for the program:

The mission of the Biomedical Engineering Department is to pursue excellence in biomedical engineering education, research, and innovation; creating and imparting knowledge for improving society, human health, and health care. To achieve our educational mission, we cultivate our students' problem-solving and communication skills, nurture their creativity, promote their ability to think critically and independently, and help them to understand scientific and engineering approaches.

Graduates of our undergraduate program are expected:

- to become successful practitioners of biomedical engineering or other professions (e.g., medicine, law, management) drawing upon and guided by their knowledge of biomedical engineering;
- to continue improving and expanding their technical and professional skills through formal or informal means (e.g., continuing education and training, attending conferences, learning new tools and methods); and
- to contribute to community and professional groups using the unique competencies provided by their biomedical engineering educational experiences.

At the time of graduation, students are expected to have:

- a) An ability to apply knowledge of mathematics, science and engineering;
- b) An ability to design and conduct experiments, as well as analyze and interpret data;
- c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability;
- d) An ability to function on multi-disciplinary teams;
- e) An ability to identify, formulate and solve engineering problems;
- f) An understanding of professional and ethical responsibilities;
- g) An ability to communicate effectively;
- h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context;
- i) A recognition of the need for, and an ability to engage in life-long learning;
- j) A knowledge of contemporary issues;
- k) An ability to use techniques, skills, and modern engineering tools necessary for engineering practice.