The educational objectives of the biomedical engineering program are to:

- Demonstrate high professional, social, and ethical standards while examining and addressing the global impact of technology to improve quality of life in society and environment
- Apply broad and deep knowledge, practical experiences, and creativity to solving problems at the interface of engineering and the life sciences as individuals and team members
- Use their multidisciplinary background to foster communication and collaboration across professional and disciplinary boundaries
- Recognize and expand the scope of their knowledge, continue self-directed learning, and identify and create professional opportunities for themselves and others

Successful graduates in Biomedical Engineering will have the ability to:

- Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- 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
- Communicate effectively with a range of audiences
- 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
- Function effectively on a multidisciplinary team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- Acquire and apply new knowledge as needed, using appropriate learning strategies
- Apply principles of engineering, biology, human physiology, chemistry, calculus-based physics, mathematics (through differential equations), and statistics;
- Solve bio/biomedical engineering problems, including those associated with the interaction between living and non-living systems;
- Analyze, model, design, and realize bio/biomedical engineering devices, systems, components, or processes; and
- Make measurements on and interpret data from living systems

Click here for more information on ABET accreditation requirements. (https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-engineering-programs-2019-2020/)

**BME Bachelor of Science Programs**

- Biomedical Engineering, B.S. combined with Chemical and Biological Engineering, B.S. ([http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/chemical-biological-dual-degree-program/](http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/chemical-biological-dual-degree-program/))
- Biomedical Engineering, B.S. combined with Computer Engineering, B.S. ([http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/computer-dual-degree-program/](http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/computer-dual-degree-program/))
- Biomedical Engineering, B.S. combined with Electrical Engineering, B.S., Electrical Engineering Concentration ([http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/electrical-dual-degree-program/](http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/electrical-dual-degree-program/))
- Biomedical Engineering, B.S. combined with Electrical Engineering, B.S., Lasers and Optical Engineering Concentration ([http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/ electrical-lasers-optical-concentration-dual-degree-program/](http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/ electrical-lasers-optical-concentration-dual-degree-program/))
- Biomedical Engineering, B.S. combined with Mechanical Engineering, B.S. (http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/mechanical-dual-degree-program/)

**Undergraduate Certificate**

- Certificate in Global Biomedical Engineering (http://catalog.colostate.edu/general-catalog/colleges/engineering/biomedical/global-biomedical-engineering-certificate/)