Graduates of the Colorado State University Biomedical Engineering bachelor’s degree program will have...

(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 multidisciplinary 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

(8a) an ability to apply principles of engineering, biology, human physiology, chemistry, calculus-based physics, mathematics (through differential equations), and statistics;

(8b) an ability to solve bio/biomedical engineering problems, including those associated with the interaction between living and non-living systems;

(8c) an ability to analyze, model, design, and realize bio/biomedical engineering devices, systems, components, or processes; and

(8d) an ability to make measurements on and interpret data from living systems

ABET’s Criteria for Bioengineering and Biomedical and Similarly Named Engineering Programs are lettered, where our Student Outcomes (items 1 –7 above) are numbered. In order to preserve both the numbering of Student Outcomes and the lettering of ABET program criteria, the latter have been named (8a) through (8d). The result is a list of 11 total Student Outcomes, (1) through (8d).