

UNIVERSITY OF CALIFORNIA, RIVERSIDE

Student Learning Outcomes for the B.S. in Bioengineering

Students completing the B.S. major will be able to:

1. apply knowledge of mathematics, science (*including biology and physiology*), and engineering
2. design and conduct experiments, *make measurements, analyze and interpret data from living systems addressing the problems associated with the interaction between living and non-living materials and systems.*
3. 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
4. function on multidisciplinary teams
5. an ability to identify, formulate, and *apply advanced mathematics (including differential equations and statistics), science, and engineering to solve problems at the interface of engineering and biology.*
6. understand professional and ethical responsibility
7. communicate effectively
8. understand the impact of engineering solutions in a global, economic, environmental, and societal context
9. recognize the need for, and an ability to engage in life-long learning
10. learn of contemporary issues *related to bioengineering*
11. use the techniques, skills, and modern engineering tools necessary for engineering practice.

Program Website: <http://www.bioeng.ucr.edu/>