

Samueli School of Engineering
Biomedical Engineering Program Learning Outcomes

Core Knowledge and Research Methods:

- demonstrate an in-depth knowledge of mathematics, biology, physiology, physical sciences, and engineering to solve problems at the interface of engineering and biology
- demonstrate an in-depth knowledge of contemporary techniques, skills, and engineering tools for solving problems medicine and biology related to biomedical engineering
- identify, formulate, and investigate independent research projects to solve problems at the frontier of biomedical knowledge and technology
- read, synthesize, and critically evaluate research in biomedical engineering

Pedagogy and Scholarly Communication:

- communicates their research results to the scientific community and contributes to leading conferences and journals
- prepare competitive research proposals to foster independent research
- communicate scientific concepts to a broad audience, e.g., develop high-quality undergraduate and graduate courses in biomedical engineering, including appropriate goals, reading or audiovisual materials, and assignments

Professionalism and Leadership:

- lead multi-disciplinary teams; educate others about problems, solutions, and technologies in biomedical engineering; mentor junior researchers
- understand the impact of engineering solutions in a global, economic, environmental, and societal context
- respect the unique ethical, environmental, and social responsibilities of engineers working in health-related fields
- make effective contributions to department, university, community, and professional service