Optional Ph.D. Emphasis in Bioengineering

Doctoral students from any department within the College of Engineering (Chemical Engineering, Computer Science, Electrical Engineering, Materials, and Mechanical Engineering) or from the following departments or programs within the MLPS Division of the College of Letters & Science (Chemistry & Biochemistry; Ecology, Evolution, and Marine Biology; Mathematics; Molecular, Cellular, and Developmental Biology; Physics; Psychological and Brain Sciences; Statistics and Applied Probability; and the Biomolecular Science & Engineering Program) may petition to add an emphasis in Bioengineering to their current doctoral degree program.

Bioengineering is a rapidly growing discipline and the emphasis is designed to prepare current doctoral graduate students to undertake research at the interfaces of engineering, physical sciences, biology, and medicine. The emphasis features a structured set of core courses that are taught collaboratively by faculty across disciplines that are engaged in bioengineering related research. Additionally, the emphasis aims to provide a community of support and a vehicle for exchange of ideas for enrolled students.

Admissions

Doctoral students in good academic standing (3.0 GPA or higher) are eligible to apply to the emphasis upon completion of the first year in their home department/program. The application should consist of the following:

1. A completed cover page to the application with an endorsement signature from the individual's current Ph.D. advisor (template available from CBE).
2. A one-page description of doctoral research area.
3. A completed Graduate Division petition to add the emphasis with necessary signatures.
4. An unofficial copy of the student's graduate UCSB transcript to date.

Students must have a doctoral research area and/or advisor identified in the field of Bioengineering. Additionally, applicants are expected to have completed one or more foundational undergraduate or graduate course in biochemistry and/or cell biology. A graduate curriculum committee comprising 3 CBE faculty members will be responsible for reviewing petitions and admission materials.

Academic Requirements

Completion of the core bioengineering course sequence (ENGR 220A/B/C) and seminar courses (ENGR 225 and 230; 3 quarters each) is required with a grade of B or better.

Completion of the Ph.D. requirements in the student's home department/program including writing & defending a dissertation related to bioengineering. The student's dissertation committee must include at least one CBE faculty member or other ladder faculty member involved in bioengineering research.