MS Biological Engineering
Effective Fall Semester 2017 – Fall Semester 2018

_The MS in Biological Engineering is oriented toward executing engineering solutions for feed, food and fiber production and/or post harvest processing problems having an intensive biological/microbiological dimension._

Admissions

- [College of Engineering M.S. admission requirements](#)
- [School of Chemical, Materials and Biomedical Engineering requirements](#)

General requirements

- M.S. students should form their advisory committee comprised of 3 faculty members within 12 months of starting their M.S. program.
- M.S. students should complete their research proposal within 15 months of starting their M.S. program.
- Student must make one oral presentation in the School Seminar.

The research is expected to generate significant scholarship (such as publications, patents, conference presentations).

Program of Study

The M.S. in Biological Engineering degree requires a minimum of 33 semester hours, which consist of the following on the student’s Program of Study:

- A minimum of 24 semester hours of coursework:
  - ENGR 6910: Foundations for Engineering Research (3 credit hours)
  - BCHE 8970: Bioengineering Seminar (2 semesters, 2 credit hours, 1 credit hour on Program of Study*)
  - ENGR 8103: Computational Engineering (3 credit hours)
  - BIOE 8490 Advanced Biomaterials (3 credit hours)
  - Choose 1 from the following (3 credit hours):
    - BCHE 8150: Heterogeneous Reactor Design and Bio/Catalysis (3)
    - CVLE/MCHE 8160: Advanced Fluid Mechanics (3)
    - ENGR 8170: Advanced Heat Transfer (3)
    - ECVLE/MCHE 8180: Advanced Mass Transport (3)
  - Electives (11 credit hours)
    - Minimum of 11 additional credit hours of graduate-level coursework selected with the approval of the student’s Graduate Advisory Committee. At least 3 credits must be from courses open to graduate students only.
• A minimum of 6 hours of Master’s Research (7000) or Project-based Research (7010). A typical student’s research hours will exceed this minimum; however, at most 6 hours of ENGR 7000/7010 may be listed on the program of study.
• 3 hours of Master’s Thesis (ENGR 7300)

*Only 1 hour of the Bioengineering Seminar may apply on the Program of Study, although the School of CBM requires completion of at least 2 hours.*