Bioengineering Graduate Program

Bioengineering

The bioengineering graduate program prepares students to become leading researchers, educators, and entrepreneurs. The program provides knowledge breadth in engineering and the biological sciences and knowledge depth in the student’s area of research interest. The program offers the Master of Science and Doctor of Philosophy degrees in bioengineering and the M.D./Ph.D. combined degree in conjunction with the KU School of Medicine (http://medicine.kumc.edu). Students have access to innovative research and educational facilities on KU’s Lawrence and KU Medical Center campuses. The student selects from 6 tracks:

1. Bioimaging,
2. Bioinformatics,
3. Biomaterials and tissue engineering,
4. Biomechanics and neural engineering,
5. Biomedical product design and development, and

The student, in consultation with his or her advisor and advisory committee, develops a Plan of Study and a research program to satisfy degree requirements.

The program’s goals are:

1. To give students an in-depth understanding of mathematics, engineering principles, physics, chemistry, physiology, and modern biology;
2. To train students to apply basic sciences to biological problems using engineering principles;
3. To train students to do bioengineering research and solve problems related to the design and development of diagnostic and therapeutic technologies that improve human health; and
4. To train students to apply bioengineering research to commercially viable technologies.

Bioengineering research projects typically focus on 1 of 2 broad categories:

1. The development of fundamental scientific knowledge and
2. The development and application of materials, devices, and systems with the goal of improving biological processes, systems, and health care.

Bioengineering students are often involved in measurements, analysis, modeling, computations, design, and development. The program prepares students for careers in industry, academia, health care settings, or government.

Financial Aid

Once admitted, students become eligible for financial aid. Graduate students in the bioengineering graduate program are most often supported through research assistantships, teaching assistantships, or fellowships (e.g., the Madison and Lila Self Fellowship). Research assistantships are arranged by the student and faculty advisor with assistance from the Bioengineering Academic Director if needed.