Master of Science in Bioengineering program outline
The Bioengineering program requires 36 credits of graduate-level coursework. All courses are 3 credits unless otherwise noted.

Core courses
Required for all students (6 credits)
BEGR 409: Introduction to Bioengineering
BEGR 411: Integrated Product Development

Biomedical Engineering Track
Required courses (18 credits)
BEGR 401: Applied Engineering Analysis
BEGR 415: 3-D Modeling of Human Anatomy and Physiology
BEGR 408: BioMEMs
BEGR 488: Biomedical Devices and Design
BEGR 451: Mechatronics/Bioinstrumentation
BEGR 474: Imaging in Biomedicine

Cell/Metabolic Engineering Track
Required courses (18 credits)
BEGR 465: Biochemistry
BEGR 424: Molecular Biology
BEGR 430: Bioinformatics
BEGR 472: Cellular Biophysics
BEGR 501: Bioengineering Experimentation and Analysis
BEGR 502: Molecular and Cellular Bioengineering

Elective Courses
Two required (6 credits)
BEGR 472: Cellular Biophysics
BEGR 452: Nanotechnology
BEGR 474: Imaging in Biomedicine
BEGR 426: Immunology and Immunoochemistry
BEGR 427: Medical Microbiology
BEGR 429: Virology
BEGR 498: Biofluidics and Microfluidics
BEGR 498: Biomechanics Muscular-Skeleton Mechanics
*Students may also select core courses from the program tracks as electives, in consultation with their advisor.
** Prerequisites for some electives may apply.

Thesis or Project
(6 credits)
Students are advised to select two elective courses and complete a 6-credit thesis to earn the degree, or they may take three elective courses and choose a 3-credit project option.