



MS in Bioengineering with a Graduate Certificate in Engineering Leadership

Total Semester Hours Required: 33

Students pursuing the MS in Bioengineering with a Graduate Certificate in Engineering Leadership must complete 16 semester-hours of required GIEL coursework, 5 semester-hours of bioengineering core coursework, and 12 semester-hours of coursework in their chosen Bioengineering concentration. Bioengineering concentration options include: Biomedical Devices and Bioimaging, Cell and Tissue Engineering, or Biomechanics. Please refer to the Bioengineering home page for the most up-to-date course requirements and other program information.

Plan of Study

All students will complete the following Gordon Engineering Leadership coursework, the Bioengineering core coursework, and one of the Bioengineering concentrations.

Required GIEL Coursework (16 semester-hours)

ENLR 5121	Engineering Leadership 1	2
ENLR 5122	Engineering Leadership 2	2
ENLR 5131	Scientific Principles of Engineering 1	2
ENLR 5132	Scientific Principles of Engineering 2	2
ENLR 7440	Engineering Leadership Challenge Project 1	4
ENLR 7442	Engineering Leadership Challenge Project 2	4

See next page for Bioengineering core coursework and concentration coursework options.

Bioengineering Core Coursework (5 semester-hours)

BIOE 7390	Seminar	0
BIOE 6100	Medical Physiology	4
BIOE 6000	Principles of Bioengineering	1

Bioengineering Concentration Options:

Biomedical Devices and Bioimaging (12 semester-hours)

BIOE 5235	Biomedical Imaging	4
BIOE 5250	Design, Manufacture, and Evaluation of Medical Devices	4
BIOE 5810	Design of Biomedical Instrumentation	4

Cell and Tissue Engineering (12 semester-hours)

BIOE 5410	Molecular Bioengineering	4
BIOE 5420	Cellular Engineering	4
	Elective	4

Biomechanics Concentration (12 semester-hours)

ME 5665	Musculoskeletal Biomechanics	4
BIOE 5650	Multiscale Biomechanics	4
	Elective	4

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