



MS in Bioengineering with Graduate Certificate in Engineering Leadership

Total Semester Hours Required: 33

Students pursuing this degree must complete 16 Semester Hours of Gordon Program coursework and 17 Semester Hours of coursework in their Bioengineering discipline (Bioimaging and Signal Processing, Cell and Tissue Engineering, Biomechanics, Biomedical Devices).

Plan of Study

All students will complete the following required Gordon Engineering Leadership coursework

Gordon Engineering Leadership Program (16 Semester Hours Total)

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

Students will also complete coursework for one of the four Bioengineering disciplines

Bioimaging and Signal Processing (17 Semester Hours Total)

BIOE 6000	Principles of Bioengineering	1
BIOE 5100	Medical Physiology	4
BIOE 7390	Seminar	0
EECE 7200	Linear Systems Analysis	4
EECE 7204	Applied Probability and Stochastic Processes	4
Elective	Elective	4

Cell and Tissue Engineering (17 Semester Hours Total)

BIOE 6000	Principles of Bioengineering	1
BIOE 5100	Medical Physiology	4
BIOE 7390	Seminar	0
BIOE 5410	Molecular Bioengineering	4
BIOE 5380	Advanced Biomolecular Dynamics and Control	4
Elective	Elective	4

Biomechanics (17 Semester Hours Total)

BIOE 6000	Principles of Bioengineering	1
BIOE 5100	Medical Physiology	4
BIOE 7390	Seminar	0
ME 5650	Advanced Mechanics of Materials	4
ME 5665	Musculoskeletal Biomechanics	4
Elective	Elective	4

Biomedical Devices (17 Semester Hours Total)

BIOE 6000	Principles of Bioengineering	1
BIOE 5100	Medical Physiology	4
BIOE 7390	Seminar	0
BIOE 5810	Design of Biomedical Instrumentation	4
BIOE 5250	Design, Manufacture, and Evaluation of Medical Devices	4
Elective	Elective	4

Students will select elective coursework in consultation with their academic advisor. More than one technical elective is allowed if approved by academic advisor.

Contact

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