

## BioE Technical requirements effective Fall 2015 curriculum and later

**BioE Technical Electives.** All students *must* take at least 6 credits from the following list with Lecture designation. Students *may* take all 12 credits with Lecture designation or may take up to 6 credits of non-lecture electives.

Course		Credits	Lecture
BIOE 3210	Biofluid Mechanics (for Bioelectrical Conc only)	3	Yes
BIOE 4020	Biocompatibility	3	Yes
BIOE 4120/6120	Orthopaedic Engr and Path	3	Yes
BIOE 4150/H4150	Research Principles	1	Yes
BIOE 4200/6200	Sports Engineering	3	Yes
BIOE 4230/6230	Cardiovascular Engr and Path	3	Yes
BIOE 4310/6310	Medical Imaging	3	Yes
BIOE 4350/6350	Modeling Multiphysics Problems	3	Yes
BIOE 4400/6400	Biopharmaceutical Engineering	3	Yes
BIOE 4490	Drug Delivery	3	Yes
BIOE 4500	Special Topics in Bioengineering	3	Yes
BIOE 4510	Creative Inquiry (Variable)	(1 – 3)	No
BIOE 4600	International Special Research Topics Variable	(1 – 6)	No
BIOE 4610	International Study in Bioengineering	3	Yes
BIOE 4690	International Internship Variable	(1 – 6)	No
BIOE 4710/6710	Biomedical Imaging in Biophotonics	3	Yes
BIOE 4760	Biosurface Engineering	3	Yes
BIOE 4820/6820	Biomaterial Implantology	3	Yes
BIOE 4900	Internships	1	No
BIOE 4910/H4910	Research in Bioengineering Variable	(1 – 6)	No
BMOL 4250/6250	Biomolecular Engineering	3	Yes
BMOL 4260/6260	Biosensors and Bioelectronic Devices	3	Yes
ECE 2720 & 2730	Computer Organization and laboratory	4 (3 & 1)	Yes
ECE 3210/3120	Electronics II	4 (3 & 1)	Yes
ECE 3810	Fields waves and circuits	3	Yes
ECE 3170	Random signal analysis	3	Yes
ECE 3710 & 3720	Microcontroller interfacing and laboratory	4 (3 & 1)	Yes
ECE 4090	Cont and Discrete Syst Design	3	Yes
ECE 4100/6100	Modern Control Theory	3	Yes
ECE 4320	Instrumentation	3	Yes
ECE 4270/6270	Microelectromechanical Systems	3	Yes
ECE 4670	Intro to DSP	3	Yes
MATH 3650	Numerical Methods for Engineers	3	Yes
MSE 4580	Surface Phenomena in Materials Science	3	Yes
PHYS 4170	Introduction to Biophysics I	3	Yes