

Currently approved Technical Electives for Biomedical Engineering B.S. Degree

<i>Elective Courses (# Total credits required = 15)</i>		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
BIOCHEM 320	Elementary Biochemistry	3
Bio 311 / Biochem 311	Genetics	3
BME 296/396/496	Independent Study/Research	3
BME 597A	ST- Nature's Materials	3
BME 597C	ST-Clinical Orthopedics for Engineers	3
BME 597D	ST- Drug Delivery	3
BME 597E	ST - Biomedical Imaging	3
BME 597G	ST- Intro to Gene Therapy	3
BME 597K	ST- Biotransport	3
BME 597M	ST- Biomedical Microfluidics	3
BME 597MB / MIE 597MB	ST-Molecular, Cellular, and Tissue	3
BME 597N	ST- Neuroengineering	3
BME 597NS / MIE 597NS	ST- Nanomaterials and Sensors	3
BME 597P	ST- Intro to Biophotonics	3
BME 597T	ST- Tissue Engineering	3
BME 597U	ST- Immunoengineering	3
CHEM 261	Organic Chemistry I	3
CHEM 262	Organic Chemistry II	3
CHEM 590CB	Chemical Biology	3
CHEM 590M	Materials Chemistry	3
ChemEng 510	Immunoengineering	3
ChemEng 575	Tissue Engineering	3
ChemEng 592B	Intro Biochemical Engineering	3
CompSci 328	Mobile Health Sensing & Analytics	3
E&C-ENG 210	Circuits & Electronics I	4
E&C-ENG 241	Advanced Programming	3
E&C-ENG 213	Continuous-Time Signals and Systems	4
E&C-ENG 231	Intro to Embedded Systems	4
E&C-ENG 310	Circuits & Electronics II	4
E&C-ENG 315	Signal Processing Methods	3
E&C-ENG 580 / MIE 444	Feedback Control	3
KIN 272	Anatomy & Physiology II	4
KIN 530	Mechanical Analysis of Human Motion	3
KIN 597R	ST - Intro to Magnetic Resonance Imaging &	3
Math 456	Mathematical Modeling	3

MICROBIO 265	Introduction to Microbiology Laboratory	2
MICROBIO 310	General Microbiology	3
MICROBIO 680	Advanced Microbial Physiology	3
MIE 290H	HIV, TB, & Malaria: Simulation Modeling to Address Public Health Problems	4
MIE 340	Fluid Mechanics I	3
MIE 344	Modeling & Analysis of Dynamic Systems	3
MIE 422	Statistical Quality Control	3
MIE 458	Connections in Medicine, Biology & Engineering	3
MIE 460	Human Factors Engineering	3
MIE 597MD	Practical Medical Device Design	3
MIE 597ME	Intro to MEMS and Microsciences	3
MIE 597R	Biorobotics	3
Psych 330	Intro to Neuroscience	3

Notes:

- 1) Students must have at least 2 courses/6 credits of technical electives at the 300-level or above
- 2) A maximum of 3 credits can be used from the BME 296/396/496 series of classes towards fulfilling technical elective requirements.
- 3) Honors college students cannot use BME 296/396/496 to count towards technical elective requirements if completing a departmental honors thesis.
- 4) You should work w/ the Academic advisor to ensure you are meeting the required number/credits of Technical Electives.
- 5) If you would like to use a course for a Technical Elective, that is not offered in the above list, you will need to complete the Alternative Tech Elective Form which can be found on the BME undergrad webpage.
- 6) These technical electives may or may not be offered every year / semester. Please consult with the offering Department and confirm whether a class will be available the semester you are considering it (or check the course history in SPIRE).