BIOMEDICAL ENGINEERING MAJOR

Major Requirements

Bachelor of Science in Biomedical Engineering

127 credits

Natural Science Requirements

Code	Title	Credits
Select one Biology elective with lab from the following:		4
BIOL 1171	General Biology I	
BIOL 1172	General Biology II	
BIOL 1173	General Biology III	
CHEM 1171 & 1171L	General Chemistry I and General Chemistry I Lab	4
CHEM 1172 & 1172L	General Chemistry II and General Chemistry II Lab	4
CHEM 2271 & 2271L	Organic Chemistry I and Organic Chemistry I Lab	4
MATH 1141	Calculus I for Chemistry, Engineering, and Physics Majors [2]	4
MATH 1142	Calculus II for Chemistry, Engineering, and Physics Majors [2]	4
MATH 2243	Calculus III for Chemistry, Engineering, and Physics Majors	4
MATH 2251	Ordinary Differential Equations	3
PHYS 1171 & 1171L	General Physics I and General Physics I Lab [2]	4
PHYS 1172 & 1172L	General Physics II and General Physics II Lab [2]	4
Total Credits		**39**

Major Requirements

For a major in Biomedical Engineering, students complete the following:

Code	Title	Credits
Engineering Foundation		
CPEG 2245	Digital Design I	3
CPEG 2245L	Digital Design I Lab	1
CPSC 1131	Fundamentals of Programming	3
ELEG 2213	Introduction to Electric Circuits	3
ELEG 2213L	Electric Circuits Lab	1
ELEG 3348	Embedded Microcontrollers	3
ELEG 3348L	Embedded Microcontrollers Lab	1
ENGR 1031	Fundamentals of Engineering	3
ENGR 2130	Engineering Graphics I	3
ENGR 2145	Mathematical Analysis	3
MEEG 2207	Materials Science	3
Biomedical Engineering Depth		
BIEG 3201	Biomechanics	3
BIEG 3301	Biomedical Instrumentation	4
BIEG 3331	Biomedical Signal Processing	3
BIEG 4332	Biomedical Imaging	3
BIEG 4350	Medical Device Design	3
ENGR 4961	Senior Design Project I	3
ENGR 4962	Senior Design Project II	3
Select two biomedical major electives with approval of advisor [1]		6
Total Credits		**55**

[1] The premed option requires BIOL 3324 Biochemistry I as one of the biomedical electives.

[2] Fulfills *Magis* Core requirement