

**BACHELOR OF SCIENCE DEGREE IN BIOMEDICAL ENGINEERING**

BMEN

Pre-Med, Biotechnology Track

Recommended Course of Study

**Freshman Year**

<u>Fall</u>			<u>Spring</u>		
CHEM 1410	General Chemistry	3	PHYS 1710	Mechanics	3
CHEM 1430	General Chemistry Laboratory	1	PHYS 1730	Laboratory in Mechanics	1
ENGL 1310	College Writing I	3	CSCE 1030	Computer Science I	4
BMEN 1300	Discover BMEN	3	TECM 2700	Technical Writing	3
MATH 1710	Calculus I	4	MATH 1720	Calculus II	3
PSCI 1040	American Government	<u>3</u>	PSCI 1050	American Government	3
		17			17

**Sophomore Year**

<u>Fall</u>			<u>Spring</u>		
BIOL 1710	Principles of Biology I	3	BMEN 2320	Biomedical Instrumentation I	4
MATH 2730	Multivariate calculus	3	MATH 2700	Linear Algebra	3
EENG 2610	Circuit Analysis	3	BIOL 1720	Biology II	3
PHYS 2220	Electricity & Magnetism	3	EENG 2710	Digital Logic	3
PHYS 2240	Lab in WM, Elec, Mag & Optics	1			
BMEN 2210	Biomed DAQ Practices	<u>2</u>			
		15			13

**Junior Year**

<u>Fall</u>			<u>Spring</u>		
MATH 3410	Differential Equations	3	BMEN 3312	Introduction to Biomechanics	<u>3</u>
BMEN 3311	Biomedical Signal Analysis	3	MATH3680	Statistics and Probability	3
BMEN3310	Human Systems	3	BMEN 3321	Biomaterials	3
XXXX	Language Philosophy and Culture	3	HIST 2610	History I	3
BIOC 3621	Elementary Biochemistry	3	BIOL 3451	Genetics	3
			BIOL 3452	Genetics Lab	1
		15			16

**Senior Year**

<u>Fall</u>			<u>Spring</u>		
BMEN 4310	Biomedical Modeling	3	HIST 2620	History II	3
BIOL 4770	Biotechnology	3	BMEN 4321	Advanced Topic in BMEN	3
BMEN 4212	Senior Design I	<u>1</u>	BMEN 4222	Senior Design II	3
BMEN 4311	Advanced Topic in BMEN	3	XXXX	Visual and Performing Arts	<u>3</u>
XXXX	Social and Behavioral Sciences	3	BIOL 4580	Molecular Biology & Biotechnology Laboraborty	2
		13			14

**Additional Pre-Med Requirements:**

1) CHEM 1420 & CHEM 1440 lab to be taken concurrently with BIOL 2041/2042	4
2) Organic Chemistry [CHEM 2370 & CHEM 3210; CHEM 2380 & CHEM 3220]	8
3) BIOL 1760 - Biology Lab	2
<b>Total Hours</b>	<b>14</b>