

# Biomedical Engineering Curriculum

## Academic Year 2019-2020

Fall Term				Spring Term					
<b>First Year</b>									
□	EGGG	101	Introduction to Engineering (FYE)	2	□	BMEG	100	Fundamentals in Biomedical Engineering	2
□	BISC	207	Introductory Biology I	4	□	CHEM	104	General Chemistry (b)	4
□	CHEM	107	General Chemistry for Life Sciences I (a)	4	□	CISC	106	General Computer Science for Engineers	3
□	MATH	241	Analytic Geometry & Calculus A	4	□	ENGL	110	Seminar in Composition	3
□			Breadth Requirement Elective 1	3	□	MATH	242	Analytic Geometry & Calculus B	4
				17					16
<b>Second Year</b>									
□	BMEG	301	Quantitative Cellular Physiology	3	□	BMEG	302	Quantitative Systems Physiology	3
□	CHEM	321	Organic Chemistry I	3	□	BMEG	230	Circuits, Signals & Systems for Biomed. Apps.	3
□	CHEM	325	Organic Chemistry Lab I	1	□	MATH	305	Applied Math for Biomed, Chem & Biomol Eg	3
□	MATH	243	Analytic Geometry & Calculus C	4	□	PHYS	208	Fundamentals of Physics II	4
□	PHYS	207	Fundamentals of Physics I	4	□			Breadth Requirement Elective 2	3
				15					16
<b>Third Year</b>									
□	BMEG	310	Bioengineering Mechanics I	4	□	BMEG	311	Bioengineering Mechanics II	3
□	BMEG	330	Biomedical Instrumentation	4	□	BMEG	341	Biomedical Experiment Design & Analysis	3
□	BMEG	340	Biomedical Modeling and Simulation	3	□	BMEG	360	Biomedical Engineering Junior Design	2
□	MSEG	302	Materials Science for Engineers	3	□	BMEG	420	Biological Transport Phenomena	4
□			Technical Elective 1	3	□			Technical Elective 2	3
				17					15
<b>Fourth Year</b>									
□	BMEG	450	Biomedical EG Design (DLE and Capstone)	6	□	PHIL	444	Medical Ethics (c)	3
□			Technical Elective 3	3	□			Technical Elective 4	3
□			Breadth Requirement Elective 3	3	□			Technical Elective 5	3
□			Breadth Requirement Elective 4	3	□			Technical Elective 6	3
					□			Breadth Requirement Elective 5	3
				15					15

**Total Credit Hours    126**

(a) Department will accept CHEM 103 General Chemistry in place of CHEM 107

(b) Department will accept CHEM 108 General Chemistry for Life Sciences II in place of CHEM 104

(c) PHIL 444 satisfies an upper level College of Engineering Breadth Requirement

Note: Minimum grade of C- is required in ENGL 110 and all Breadth Requirement courses.