BSBE BIOLOGICAL ENGINEERING
Fall 2018

This document is an aid only for planning a **BSBE** degree plan. Several factors affect a course scheduling sequence.
See the UGA Bulletin for details: http://bulletin.uga.edu/

Major Requirements: Students must earn a grade of "C" (2.0) or better in the courses indicated in **bold**.

High Demand Entrance Requirements
To be considered as a candidate for **BSBE**, students must complete the courses indicated in *italics*. For more information, refer to the UGA Bulletin: **http://bulletin.uga.edu/** and our website: **http://engineering.uga.edu/academics/admissions-eligibility.**

YEAR ONE

Fall Semester		Hours	Spring Semester		Hours
MATH 2250	***Calculus I***	4	***MATH 2260***	***Calculus II***	4
ENGR 1920	Intro to Engineering	1	***CHEM 1212&L***	***Freshman Chemistry II***	4
ENGR 1120	**Engineering Graphics**	2	***PHYS 1251***	***Physics for Engineers I ^***	3
ENGR 1140	Computational Engr. Methods	2	***BIOL 1107&L***	***Principles of Biology I***	4
CHEM 1211&L	**Freshman Chemistry I**	4	FYOS	First-Year Odyssey	1
ENGL 1101	**English Composition I**	3			
Total Credit Hours		**16**	**Total Credit Hours**		**16**

YEAR TWO

Fall Semester		Hours	Spring Semester		Hours
MATH 2500	**Multivariable Calculus**	3	**MATH 2700**	**Differential Equations**	3
ENGR 2120	***Statics***	3	**ENGR 3160**	**Fluid Mechanics**	3
PHYS 1252	**Physics for Engineers II ^**	3	**ENGR 2110**	**Engineering Decision Making**	3
BIOL 1108&L	**Principles of Biology II**	4	**ENGR 2170**	**Electrical Circuits**	3
CHEM 2211&L	Organic Chemistry I	4	AENG 2920	Design Methodology	2
			ENGL 1102	English Composition II	3
Total Credit Hours		**17**	**Total Credit Hours**		**17**

YEAR THREE

Fall Semester		Hours	Spring Semester		Hours
BCHE 3520	**Mass Transport/Rate Phenomena**	3	**ENGR 3150**	**Heat Transfer**	3
ENGR 3140	**Thermodynamics I**	3	BIOE 4760	Biomechanics	3
ENGR 2140	**Strength of Materials**	3		World Lang & Culture Elective	3
BCMB 3100	Intro Biochem./Molecular Biology	4		Social Sciences Elective	3
MIBO 3500	Intro Microbiology	3	COMM 1110	Intro to Public Speaking	3
Total Credit Hours		**16**	**Total Credit Hours**		**15**

YEAR FOUR

Fall Semester		Hours	Spring Semester		Hours
BIOE 4910	Engineering Design Project I	2	BIOE 4911	Engineering Design Project II	2
BIOE 4740	Biomaterials	3		Biological Engineering Elective	3
BIOE 3720	Engineering Physiology	3		World Lang & Culture Elective	3
	Biological Engineering Elective	3		World Lang & Culture Elective	3
	Biological Engineering Elective	3		Social Sciences Elective	3
	Science Elective**	3		Social Sciences Elective	3
Total Credit Hours		**17**	**Total Credit Hours**		**17**

School of Chemical, Materials and Biomedical Engineering
College of Engineering
UNIVERSITY OF GEORGIA

Biological Engineering Electives

Select **three (3)** courses from the list below. **BIOE** prefix courses are preferred over BCHE prefix courses.

BCHE 4510/6510	Biochemical Engineering
BCHE 4655/6655	Metabolic Engineering and Synthetic Biology
BIOE (CHEM) 4615/6615	Soft Materials
BIOE 4625	Tissue Engineering
BIOE 4650/6650	Animal Cell Biomanufacturing
BIOE 4720/6720	Biomedical Device Design
BIOE 4750	Biomedical Engineering Lab
BIOE 4780	Regulations and Ethics in Biomedical Engineering
*CSEE 4620/6620	Biomedical Imaging
CSEE 4750	Programming for Computational and Systems Biology
*CSEE 4790	Applied Biomedical Instrumentation

Students may only choose **one of these.*

**Science Elective

Select any Biology or Ecology course at the 3000 level or above. Suggested courses:
BCMB(CHEM) 4110, BCMB(ENTO) 4200, CBIO(BIOL) 3400, CBIO(MIBO) 4100, CRSS 4600&L, ECOL(BIOL) 3500&L, MIBO 4090, VPHY 3100.

^ Preferred courses for Pre-Health students:

PHYS 1211-1211L (4 hours) - Principles of Physics for Scientists and Engineers-Mechanics, Waves, Thermodynamics
PHYS 1212-1212L (4 hours) - Principles of Physics for Scientists and Engineers-Electricity and Magnetism, Optics, Modern Physics