

BSBE Biological Engineering
Fall 2017

This document is an example of a BSBE program of study. Several factors can affect the course scheduling sequence. For a copy of the official curriculum, please go to the UGA Bulletin: <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 on entrance requirements, please refer to the UGA Bulletin: <http://bulletin.uga.edu/> and our website.

YEAR ONE

Fall Semester		Hours	Spring Semester		Hours
MATH 2250	<i>Calculus I</i>	4	MATH 2260	<i>Calculus II</i>	4
ENGR 1920	Intro to Engineering	1	CHEM 1212&L	<i>Freshman Chemistry II</i>	4
ENGR 1120	Engineering Graphics	2	PHYS 1251	<i>Physics for Engineers I</i>	3
ENGR 1140	Computational Engr. Methods	2	BIOL 1107&L	<i>Principles of Biology I</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 1100	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

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

Biological Engineering Electives

Select three (3) courses from the list below. BIOE prefix courses are preferred over BCHE prefix courses. BIOE 4750 is highly recommended.

BCHE 4510/6510	Biochemical Engineering
BCHE 4655/6655	Metabolic Engineering and Synthetic Biology
BIOE/CHEM 4615	Soft Materials
BIOE 4625	Tissue Engineering
BIOE 4750	Biomedical Engineering Lab
*CSEE 4620/6620	Biomedical Imaging
*CSEE 4790	Applied Biomedical Instrumentation

*Students may only choose one of these.