



Approved 10 Sept 2024 by Prof. Amanda Lowery

Semester 1	Course	Hrs
CHEM 1601, 1601L	General Chemistry	4
ES 1401, 1402, 1403	Intro to Engineering	3
MATH 1300	Acc Single-Var Calculus I	4
	LAC	3
	Vanderbilt Visions	0
	total hours	14

Semester 2	Course	Hrs
CHEM 1602/1602L	General Chemistry (Lecture, Lab, Recitation)	4
MATH 1301	Accelerated Single-Variable Calculus II + Recitation	4
CS 1103, 1101, 1100, or 1104	Introductory Programming	3
PHYS 1601/1601L	General Physics I and Lab	4
BME 1015	Innovations and Careers in BME	1
	total hours	16

Semester 3	Course	Hrs
BME 2301	Systems Physiology I	3
MATH 2300	Multivariable Calculus	3
BSCI 1510/1510L	Introduction to Biological Sciences and Lab	4
PHYS 1602/1602L	General Physics II and Lab	4
	LAC Elective	3
	total hours	17

Semester 4	Course	Hrs
BME 2302	Systems Physiology II	3
BME 2100	Introductory Biomechanics	3
BME 2400	Quantitative Methods I	3
BME 2900W	Biomedical Engineering Lab I	1
MATH 2400	Differential Equations with Linear Algebra + Recitation	4
ECE 2112	Circuits I	3
	total hours	17

Semester 5	Course	Hrs
BME 3000	Physiological Transport Phenomena	3
BME 3301	Biomedical Instrumentation I	4
BME 3400	Quantitative Methods II	3
BME 3900W	Biomedical Engineering Lab II	1
LAC	LAC Elective	3
TECH	Technical Elective	3
	total hours	17

Semester 6	at IES Madrid/UC3M	Hrs
UC3M-15554	BME 3302 -Biomedical Instrumentation II	4
UC3M-15553	BME 3500 - Biomaterials	3
	BME Elective	3
	BME Elective	3
	LAC Elective - IES Madrid Spanish	3
	total hours	16

Semester 7	Course	Hrs
BME 4901W	Biomedical Engineering Lab III	1
BME 4950	BME Design	2
BME 4959	Design Seminar	1
LAC	LAC Elective	3
BME	BME Elective	3
TECH	Technical Elective	3
Open	Open Elective	2
	total hours	15

Semester 8	Course	Hrs
BME 4951	BME Design	3
BME	BME Elective	3
TECH	Tech Elective	3
LAC	LAC Elective	3
Open	Open Elective	3
	total hours	15

total hours = 127

*Students taking UC3M should self-study cardiovascular physiology.

This curriculum plan is a guide but NOT authoritative. The Undergraduate Catalog is the authoritative document regarding degree requirements. Students considering studying abroad should consult the catalog and discuss their plans with their academic advisers.