Biomedical Engineering- *First- and Second-Year Curriculum*

Catalog Year 2025-2026

Note: This is a recommended sequence and shifts are likely to occur due to prerequisite completion and course availability.

Semester One	Semester Two
CHEM 1127Q: General Chemistry I (4 credits) (TOI 6)	CHEM 1128Q: General Chemistry II (4 credits) (TOI 6)
MATH 1131Q: Calculus I (4 credits)	MATH 1132Q: Calculus II (4 credits)
CSE 1010: Intro to Computing for Engineers (3 credits)	ENGR 1166: Foundations of Engineering (3 credits)
ENGL 1007: Writing and Composition (4 credits)	BIO 1107: Principles of Biology I (4 credits) (TOI 6)
ENGR 1000: Orientation to Engineering (1 credit)	ENGR 1195: AI4All (2 credits)
16 credits	**17 credits**

Semester Three	Semester Four
PHYS 1501Q: Physics for Engineers I (4 credits) (TOI 6)	PHYS 1502Q: Physics for Engineers II (4 credits) (TOI 6)
MATH 2110Q: Multivariable Calculus (4 credits)	MATH 2410Q: Elem. Differential Equations (3 credits)
CE 2110: Applied Mechanics I (3 credits)	ECE 2001: Electrical Circuits (4 credits)
PNB 2264: Human Physiology & Anatomy (4 credits)	STAT/Prob. course based on concentration* (3 credits)
MATH 2210Q-: Applied Linear Algebra (3 credits)	MSE 2101: Materials Science & Engineering I (3 credits)
	BME 3120- LabVIEW Basics for Engineers (1 credit)
18 credits	**18 credits**

Note: *Biomechanics & Mechanobiology* and *Biomaterials & Tissue Engineering must take* STAT 3025Q or ENGR 3400, *Systems, Imaging, and Instrumentation* and *Computational Systems must take* STAT 3345Q or 3375Q or MATH 3160.

BME Concentrations – Fifth Semester Courses:

BME students select their Concentration prior to their 3rd semester. View concentration requirements in the University Catalog. To declare a concentration, go to https://request.engr.uconn.edu.

Biomechanics & Mechanobiology	Systems, Imaging, and Instrumentation	Computational & Systems Biology	Biomaterials & Tissue Engineering
BME 3600*: Biomechanics (4 credits)	BME 3500*: Biomedical Engineering Measurements (4 credits)	CSE 2050: Data Structures & Object-Oriented Design (3 credits)	BME 3500*: Biomedical Engineering Measurements (4 credits)
BME Elective (3 credits)	BME 3400: Biosystems Analysis **or** ECE 3101: Signals & Systems (3 credits)	BME 3400: Biosystem Analysis **or** ECE 3101: Signals & Systems (3 credits)	BME 3600*: Biomechanics (4 credits)
ME 2120: Applied Mechanics II (3 credits)	ECE 3201: Electronic Circuit Design & Analysis **or** CSE 2301: Principles and Practice of Digital Logic Design (4 credits)	MCB 2210: Cell Biology (3 credits)	BME 3400: Biosystem Analysis **or** ECE 3101: Signals & Systems (3 credits)
CE 3110: Mechanics of Materials (3 credits)	STAT 3965 **or** MATH 3170: Elementary Stochastic Processes (3 credits)	MCB 2400: Human Genetics **or** MCB 2410: Genetics (3 credits)	TOI Course (3 credits)
TOI Course (3 credits)	TOI Course (3 credits)	STAT 3965 **or** MATH 3170: Elementary Stochastic Processes (3 credits)	TOI Course (3 credits)
		TOI Course (3 credits)	
16 credits	**17 credits**	**18 credits**	**17 credits**

***=Must be taken in 5th semester**

PLEASE NOTE: Courses/credits listed on this sheet may not include all credits on your transcript; only courses that meet graduation requirements are indicated. It is the student's responsibility to ensure they are fulfilling all graduation requirements, including total # of credits to graduate.