BACHELOR OF SCIENCE IN BIOMEDICAL ENGINEERING **Catalogue**

Student: **Date:** **2025-2026**

netID: **Advisor:**

Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
MA: MATH 1234 - Calculus I*	4		MA: MATH 1248 - Calculus II* *MATH 1234*	4	
N2, QD: CHEM 1400 - General Chemistry 1	4		BME 1605 - Design 1: Intro to Design	3	
ENGR 1020 - Graphical Communication	2		N2, QD: PHYS 1500 - Physics for Engineers I* *MATH 1234*	4	
QD: CS 1210 - Computer Programming I	3		PHYS 1510 - Physics Problem Solving I [Optional]	1	
CEMS 1500 - CEMS First Year Seminar	1		N2, QD: CHEM 1450 - General Chemistry 2 CHEM 1400	4	
Catamount Core (WIL1): ENGL 1001 - Written Expression	3		MATH 2500 - Eng Math Linear Algebra Lab MATH 1234; Pre/Coreq: MATH 1248 or MATH 1242	1	
Total credits	*17*		*Total credits*	*16-17*	

Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
CEE 1100 - Statics *MATH 1248; PHYS 1500*	3		BME 2170 - Biomechanics *CEE 1100, ANPS 1190*	3	
GC: BME 2605 - Design 2: Regulations & Testing *BME 1605*	3		N2: BHSC 1340 - Human Cell Biology	4	
MA: MATH 2248 - Calculus III *MATH 1248*	4		MATH 3201 - Adv Engineering Mathematics *MATH 2248; Pre/Coreq: MATH 2522 or MATH 2544 or MATH 2500*	3	
QD: STAT 2430 - Statistics for Engineering *MATH 1234*	3		CHEM 1582- Intro Org Chem OR CHEM 2580- Org Chem *CHEM 1450/1455*	3-4	
ANPS 1190 - Ugr Hum Anatomy & Physiology 1	4		ANPS 1200 - Ugr Hum Anatomy & Physiology 2 *ANPS 1190*	4	
Total credits	*17*		*Total credits*	*17-18*	

Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
BME 3130 Biomaterials *BHSC 1340; CHEM 1152 or CHEM 2580*	3		BME 3175 - Biomedical Data & Signal Analysis *CS 1210; EE 2155; Pre/Coreq: MATH 3201*	4	
BME 3150 Biotransport *MATH 3201; ANPS 1200*	3		BME 3255 Biomaterials & Transport Lab *BME 3130, BME 3150; Pre/Coreq STAT 2430*	3	
BME 3205 - Biomechanics Lab *BME 2170*	3		SU: BME 3605 - Design 3: BME Capstone I *BME 1605; 2605*	3	
EE 2155 - BME Circuits and Optics *MATH 1248*	4		BME Specialization Elective 1	3	
Catamount Core (Diversity 1)	3		Catamount Core (AH Arts & Humanities)	3	
Total credits	*16*		*Total credits*	*16*	

Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
OC: BME 4605 - Design 4: BME Capstone II *BME 3605*	3		Catamount Core (S1 Social Science)	3	
Catamount Core (Diversity 1 or Diversity 2)	3		BME Specialization Elective 3	3	
BME Engineering Elective (BME 3000 level or higher)	3		BME Engineering Elective (BME 3000 level or higher)	3	
BME Specialization Elective 2	3		Engineering Elective	3	
Catamount Core (AH Arts & Humanities)	3		Catamount Core (S1 Social Science)	3	
Total credits	*15*		*Total credits*	*15*	

Minimum Total Credits Required for Degree: 129

This document is an advising tool and should be used in combination with a student's degree audit, as well as the published Catalogue for 2025-2026 found at http://catalogue.uvm.edu/

Prerequisite courses are listed below the course name in italics. Prerequisites listed are only for courses, as relevant to your specific degree program, and may have other registration restrictions. Please refer to the catalogue.

* Grade of C- or higher required

BME Elective: Any BME course at the 3000-level or higher.

Engineering Elective: Any course at the 1000-level or higher in BME, CEE, EE, ENGR, EMGT, ME, CMPE or CS

BME Specialization Elective 1, 2, 3: Any 3 credits in BCOR, BHSC, BIOC, BIOL, BME, CEE, CEMS, CHEM, CMPE, COMU, CS, EE, EMGT, ENGR, ENSC, EXSC, HLTH, HSCI, MATH, ME, MLS, MMG, NSCI, PHRM, PHYS, RADT, or STAT. The number corresponds to the level at which the course must be taken (1000, 2000, 3000). Other courses may be approved by the BME Undergraduate Program Director.

Catamount Core: Students may take courses that fulfill more than one Catamount Core requirement, but they must still take at least 40 unique credits of courses that have been approved to fulfill Catamount Core requirements.