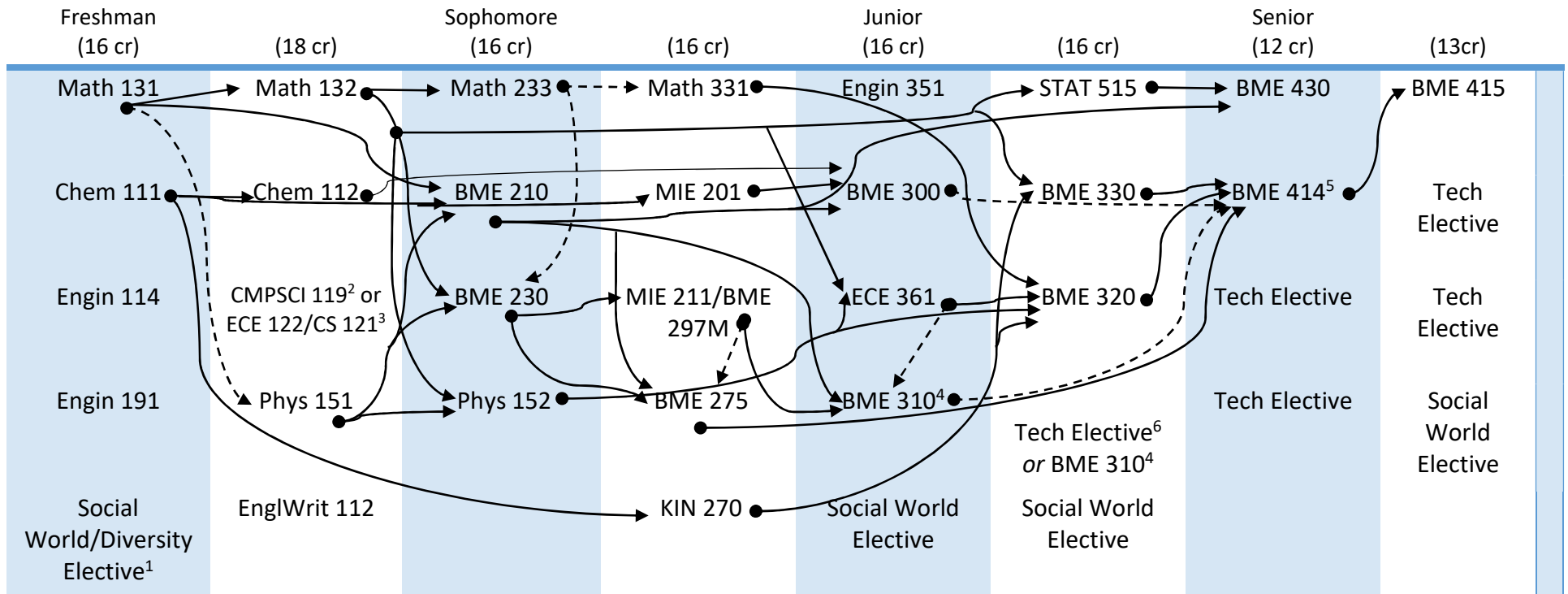


Biomedical Engineering Curriculum for BME Students



Solid arrows indicate prerequisite courses. Dashed arrows indicate courses that can be taken as co-requisites (department approval required in some cases).

- 1) Students must take two Diversity courses to meet university general education (gen ed) requirements, one must be during the first year; information on the social world gen eds (including diversity) can be found here: <https://www.umass.edu/gened/students/fulfilling-requirements>
- 2) CS 119 may be taken in Fall or Spring of freshman year; it can be swapped with the Social World/Diversity elective.
- 3) Students interested in Bioinstrumentation should take ECE 122; CMPSCI 121 requires Math 131 as a prerequisite.
- 4) BME 310 will be offered in both fall and spring semesters; STAT 515 or a tech elective could be moved forward.
- 5) BME 414: Student preferred to have all courses as prerequisites. Department approval needed for students taking BME 300 or 310 as co-requisites.
- 6) Students must have at least five (5) technical electives (total of 15 credits). No more than three (3) electives may be at the 200-level, and only one of those may be an Engineering course. Students must have at least two (2) 300-level or higher technical elective courses.
- 7) Students must have a cumulative and major GPA of at least 2.0 in order to graduate.

Contact the BME advisor if you have questions: <https://bme.umass.edu/undergraduate-students>

Biomedical Engineering Curriculum for BME Students

Course Titles and Numbers

BME 210	Intro to Bioengineering/Biology for Engineers
BME 230	Statics & Dynamics
BME 275	Biomechanics
BME 297M	Strength of Materials
BME 300	Biomaterials
BME 310	Intro to Laboratory Techniques
BME 320	Bioinstrumentation
BME 330	Quantitative Physiology
BME 414	Senior Design I
BME 415	Senior Design II
BME 430	Systems Biology (same as BME 497B)
Chem 111	Chemistry I
Chem 112	Chemistry II
CmpSci 119	Intro to Programming
ECE 361	Fundamentals of Electrical Engineering
Engin 114	Intro to Engineering: Biomedical Engineering
Engin 191	Freshman Seminar
Engin 351	Writing in Engineering (junior year writing)
EnglWrit 112	College Writing
KIN 270	Anatomy & Physiology I
Math 131	Calculus I
Math 132	Calculus II
Math 233	Multivariate Calculus/Calculus III
Math 331	Differential Equations
MIE 201	Intro to Materials Science
MIE 211	Strength of Materials
STAT 515	Statistics I
Phys 151	Physics I
Phys 152	Physics II

List of pre-approved technical electives and the alternative elective form may be found on the BME undergraduate webpage. This list is a work in progress and is updated regularly; contact the BME advisor for questions: <https://bme.umass.edu/undergraduate-students>