UMASS BOSTON

STUDENT SUCCESS CENTER

COLLEGE OF SCIENCE AND MATHEMATICS
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Updated:8/11/18

Sample Four-Year Plan for a BS in Physics

	Fall Semester	Spring Semester
Freshman Year	Physics 113 & 181 – 6 cr Math 140 – 4 cr General Education – 3 cr English 101 – 3 cr (16 credits)	Physics 114 & 182 – 6 cr Math 141 – 4 cr First-Year Seminar – 4 cr English 102 – 3 cr (17 credits)
Sophomore Year	* Physics 211 – 3 cr * Physics 281 – 3 cr Math 242 – 4 cr Chemistry 115 & 117 - 5 cr (15 credits)	* Physics 214 – 3 cr Math 270 – 3 cr Chemistry 116 & 118 – 5 cr General Education – 3 cr Intermediate Seminar – 3 cr (17 credits)
Junior Year †	Physics Elective – 3 cr ** Math 260 – 3 cr General Education – 3 cr General Education – 3 cr General Education – 3 cr (15 credits)	* Physics 312 – 3 cr * Physics 350 – 3 cr * Physics 382 – 3 cr CS 110 or 109 – 3 or 4 cr General Education – 3 cr (15-16 credits)
Senior Year	* Physics 321 – 3 cr * Physics 421 – 3 cr Physics Elective – 3 cr Physics Elective – 3 cr (12 credits)	* Physics 322 – 3 cr Physics Elective – 3 cr General Education – 3 cr Elective – 3 cr (12 credits)

* - Class may be offered only once a year.
** - Recommended.
† - The Writing Proficiency Requirement (WPR) is recommended to be completed at 60-75 credits. Please consult the WPR website: www.umb.edu/academics/vpass/undergraduate_studies/writing_proficiency

- This document is a suggested plan for the major. Students must meet with their faculty advisor each semester and refer to their degree audit to ensure adequate progress toward their degree.

Physics BS Course Number Guide

This course guide provides the detailed names of courses listed by number on the four-year plans. It is not a comprehensive list of courses for your major, or a substitute for an advising appointment! Consult with your faculty advisor when choosing courses, and check your degree audit regularly.

Chemistry 115 & 117 – Chemical Principles I Lecture & Laboratory

Chemistry 116 & 118 – Chemical Principles II Lecture & Laboratory

CS 110 – Introduction to Computing

CS 109 – Computer Programming for Engineers

Math 140 – Calculus I

Math 141 – Calculus II

Math 242 – Multivariable and Vector Calculus

Math 260 – Linear Algebra I

Math 270 – Applied Ordinary Differential Equations

Physics 113 & 181 – Fundamentals of Physics I Lecture & Laboratory

Physics 114 & 182 – Fundamentals of Physics II Lecture & Laboratory

Physics 211 & 281 – Introduction to Contemporary Physics & Physical Laboratory I

Physics 214 – Thermodynamics

Physics 312 - Mechanics

Physics 321 – Theory of Electricity and Magnetism I

Physics 322 – Theory of Electricity and Magnetism II

Physics 350 – Statistical Physics

Physics 382 – Intermediate Laboratory

Physics 421 – Atomic Physics and Introduction to Quantum Mechanics

Additional resources:
www.umb.edu/academics/vpass/undergraduate_studies/general_education_requirements
www.umb.edu/academics/course_catalog/search
www.umb.edu/academics/csm/student_success_center/degree_planning/math_placement