

# Physics B.A. Curriculum for Students Entering up through 2014

## CMU / MCS Science Core

All MCS students must complete these core courses by the end of their Junior year. Computing @ Carnegie Mellon must be completed in the first year.

99-101 / -102 / -103: Computing @ CMU

33-111: Physics I for Science Students  
33-131: Matter and Interactions I

33-112: Physics II for Science Students  
33-132: Matter and Interactions II

03-121: Modern Biology

09-105: Introduction to Modern Chemistry I

15-110: Principles of Computing  
15-112: Fund. of Programming & CS

21-120: Differential and Integral Calculus

21-122: Integration, Diff. Eq., and Approx.

## MCS Distribution

All MCS students take both constrained and free electives outside MCS. Permissible electives are listed in the course catalog.

76-101: Interpretation and Argument

Cognition, Choice, and Behavior Elective

Economic, Political, and Social Institutions Elective

Cultural Analysis Elective

Non-Technical Elective

Non-Technical Elective

Non-Technical Elective

Non-Technical Elective

## Physics Core

All Physics majors take these Physics and Mathematics courses to prepare for individualized tracks of study, including four colloquium courses.

33-104: Experimental Physics

33-201: Physics Sophomore Colloquium I

33-202: Physics Sophomore Colloquium II

33-211: Physics III: Modern Essentials

33-228: Electronics I

33-231: Physical Analysis

33-232: Mathematical Methods of Physics

33-234: Quantum Physics

21-259: Calculus in Three Dimensions

33-301: Physics Upperclass Colloquium I

33-302: Physics Upperclass Colloquium II

33-331: Physical Mechanics I

33-338: Int. Electricity and Magnetism I

33-340: Modern Physics Laboratory

33-341: Thermal Physics I

## Physics and Free Electives

Compared to the B.S., the B.A. replaces 6 Physics, Mathematics, and Technical Electives with Free Electives, allowing intensive study outside STEM.

Qualifying Physics Elective

Qualifying Physics Elective

Free Elective

Free Elective

Free Elective

Free Elective

Free Elective

Free Elective

Free Elective

Free Elective

Free Elective

*Note:* Free electives are to satisfy the 360 unit requirement.

**Key**

- : Required Course
- : Select One Course
- : Any Course