

Additional Major in Physics for Students Entering up through 2014

Prerequisites

This subset of the MCS Core must be taken as prerequisites for the second-year Physics Core.

33-106: Physics I for Engineering
33-111: Physics I for Science Students
33-131: Matter and Interactions I

33-107: Physics II for Engineering
33-112: Physics II for Science Students
33-132: Matter and Interactions II

21-120: Differential and Integral Calculus

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

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

Physics Core

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

These Physics and Mathematics Electives may be chosen freely, but the tracks on the following pages are designed to support specific careers.

Physics Breadth Elective


Qualifying Physics Elective

Qualifying Physics Elective

Qualifying Physics Elective

Mathematics Elective

Key

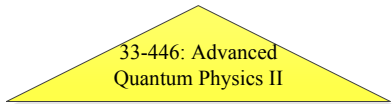
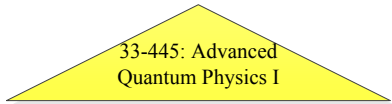
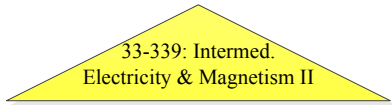
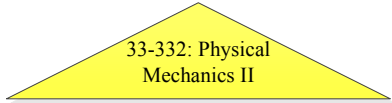
 : Required Course

 : Select One Course

Additional Major in Physics Tracks, Page 1

Graduate School Preparation

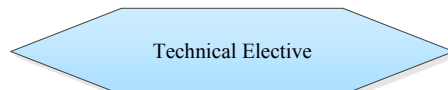
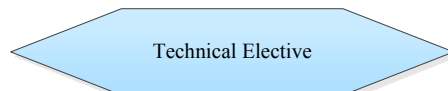
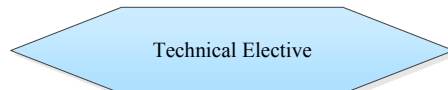
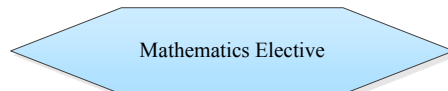
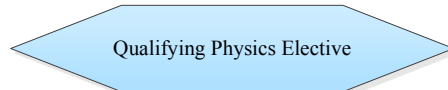
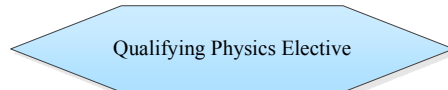
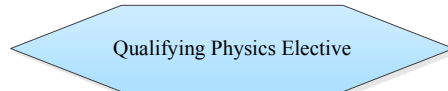
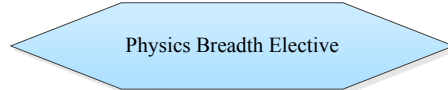
Regardless of track, students planning to undertake graduate studies in Physics are strongly advised to take the following four courses.



Note: These courses may be used as Qualifying Physics, Technical, or Free Electives.

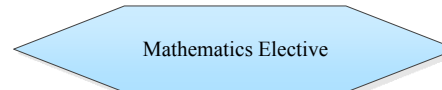
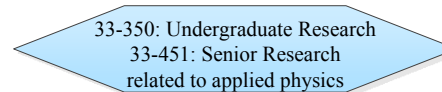
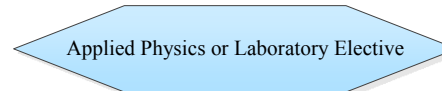
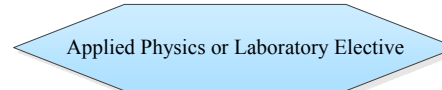
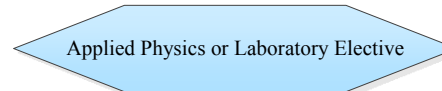
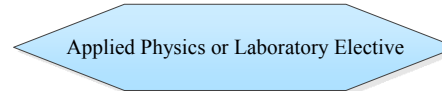
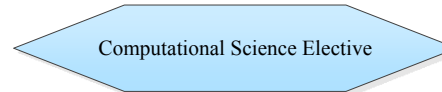
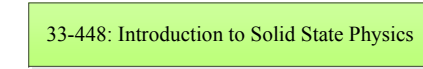
No Track

Physics students wanting maximum freedom can opt not to select a track. While there is significant flexibility, there are breadth requirements.



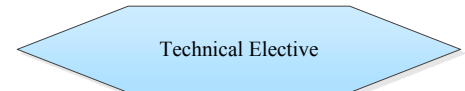
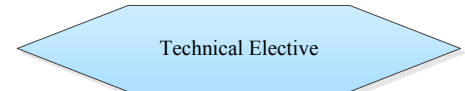
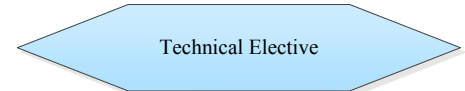
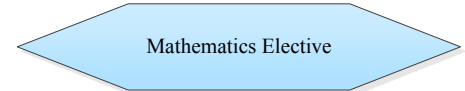
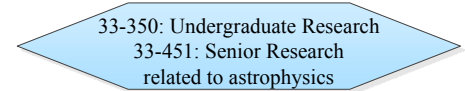
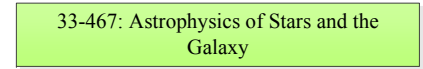
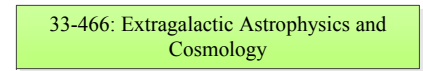
Applied Physics Track

Students aiming for a career path in industrial or governmental laboratories can take this track to enhance computing and laboratory skills.



Astrophysics Track

Students planning careers or postgraduate work in astronomy or astrophysics can follow this track to gain a strong background in the field.



Key

: Required Course

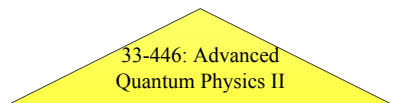
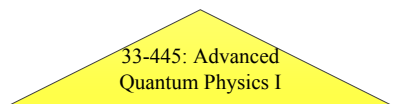
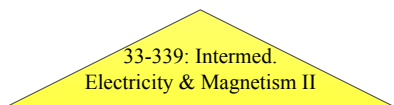
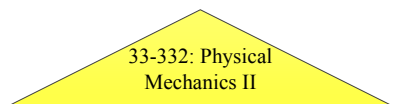
: Select One Course

: Recommended Course

Additional Major in Physics Tracks, Page 2

Graduate School Preparation

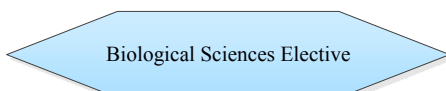
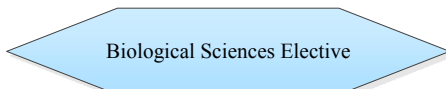
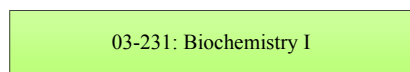
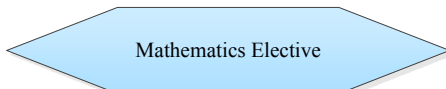
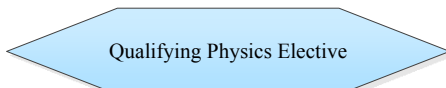
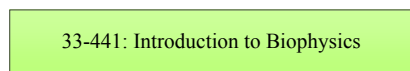
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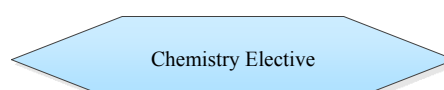
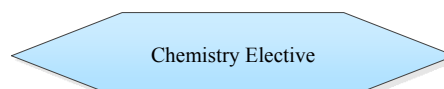
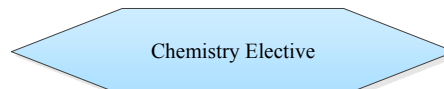
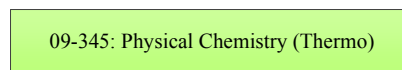
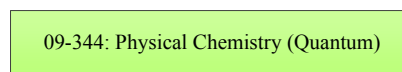
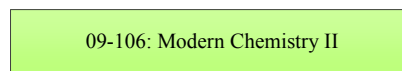
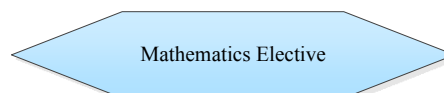
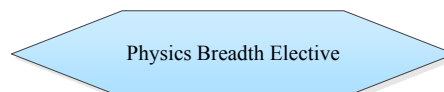
Biological Physics Track

Students preparing for careers in biological or medical physics or graduate work in biophysics can broaden their major with this track.



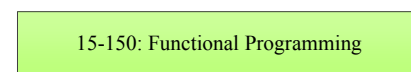
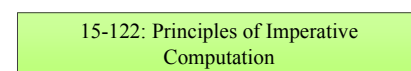
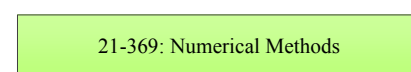
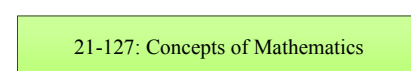
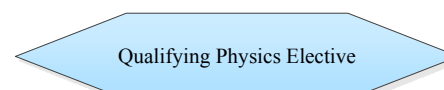
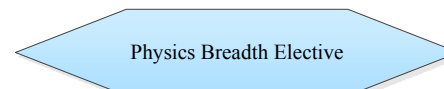
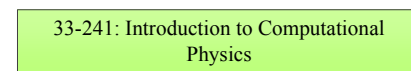
Chemical Physics

Students planning graduate studies with an emphasis on chemical physics or a health profession may be interested in this track.



Computational Physics Track

Students can strengthen their grounding in the foundations and practice of computer use as applied to scientific problems with this track.



Key

: Required Course

: Select One Course

: Recommended Course