PHYSICS MAJOR:
ASTRONOMY OPTION (B.S.)

https://physics.unh.edu/content/bs-option-astronomy

Description

The astronomy option prepares students for professional work as a physicist or astrophysicist, and is the first step towards graduate work in astronomy or physics. It takes full advantage of the wide range of research that UNH has to offer in astrophysics and space science.

Requirements

University Discovery requirements

Bachelor of Science requirements

Physics requirements:

- PHYS 400 Freshman Seminar
- PHYS 406 Introduction to Modern Astronomy
- PHYS 407 General Physics I
- PHYS 408 General Physics II
- PHYS 505 General Physics III
- PHYS 506 General Physics III Laboratory
- PHYS 508 Thermodynamics and Statistical Mechanics
- PHYS 605 Experimental Physics I
- PHYS 615 Classical Mechanics and Mathematical Physics I
- PHYS 616 Classical Mechanics and Mathematical Physics II
- PHYS 701 Quantum Mechanics I
- PHYS 702 Quantum Mechanics II
- PHYS 703 Electricity and Magnetism I
- PHYS 704 Electricity and Magnetism II
- PHYS 705 Experimental Physics II
- PHYS 710 Modern Astrophysics

Capstone:

- PHYS 795 Independent Study
- PHYS 799 Thesis

Chemistry:

- CHEM 403 General Chemistry I
- CHEM 405 Chemical Principles for Engineers

Mathematics:

- MATH 425 Calculus I
- MATH 426 Calculus II

Select one of the following options:

Option A:
- MATH 526 Linearity I
- MATH 527 Linearity II

Option B:
- MATH 529 Multidimensional Calculus
- MATH 528 Differential Equations with Linear Algebra
- MATH 545 Introduction to Linear Algebra
- MATH 645 Linear Algebra for Applications

Electives in Option:

Select one of the following:

- PHYS 764 General Relativity and Cosmology
- PHYS 712 Space Plasma Physics
- PHYS 760 Nuclear Physics
- PHYS 760 Nuclear Physics

Note that no physics course can satisfy these requirement for a physics major. The rationale behind this is that a course in physics does not broaden the education of a physics major.

The Department generally recommends MATH 645 Linear Algebra for Applications over MATH 545 Introduction to Linear Algebra for Physics majors, but the best option, when possible, is MATH 525 Linearity I-MATH 526 Linearity II.

By the end of the spring semester of the sophomore year, a student must have a minimum grade of C in each 400- or 500-level course specifically required for the B.S. degree and an overall grade-point average of at least 2.33 in these courses in order to continue in the B.S. program.