

MINOR IN PHYSICS

Program Learning Outcomes for the Minor in Physics

Upon completing the minor in Physics, students will be able to:

1. Acquire and demonstrate a solid foundation of knowledge in physics. This includes: basic mechanics, basic electromagnetism, Maxwell's equations in differential form, waves, interference and diffraction, special relativity, the Schrodinger equation, and the wave formulation of quantum mechanics.
2. Acquire and demonstrate knowledge in a number of advanced physics topics of their choosing.

Requirements for the Minor in Physics

Students pursuing the minor in Physics must complete:

- A minimum of 35 credit hours to satisfy minor requirements.
- A minimum of 26 credit hours to satisfy the Core Requirements.
- A minimum of 9 additional credit hours from departmental (PHYS) course offerings at the 300-level or above.

The courses listed below satisfy the requirements for this minor. In certain instances, courses not on this official list may be substituted upon approval of the minor's academic advisor, or where applicable, the Program Director. (Course substitutions must be formally applied and entered into Degree Works by the minor's Official Certifier (<https://registrar.rice.edu/facstaff/degreeworks/officialcertifier>)). Students and their academic advisors should identify and clearly document the courses to be taken.

Summary

Code	Title	Credit Hours
Total Credit Hours Required for the Minor in Physics		35

Minor Requirements

Code	Title	Credit Hours
Core Requirements		
Select 1 from the following:		4
PHYS 101 & PHYS 103	MECHANICS (WITH LAB) and MECHANICS DISCUSSION	
PHYS 111	HONORS MECHANICS (WITH LAB)	
Select 1 from the following:		4
PHYS 102 & PHYS 104	ELECTRICITY & MAGNETISM (WITH LAB) and ELECTRICITY AND MAGNETISM DISCUSSION	
PHYS 112	HONORS ELECTRICITY & MAGNETISM (WITH LAB)	
MATH 101 or MATH 105	SINGLE VARIABLE CALCULUS I AP/OTH CREDIT IN CALCULUS I	3
MATH 102 or MATH 106	SINGLE VARIABLE CALCULUS II AP/OTH CREDIT IN CALCULUS II	3
MATH 211	ORDINARY DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA	3

or MATH 221	HONORS CALCULUS III	
MATH 212	MULTIVARIABLE CALCULUS	3
or MATH 222	HONORS CALCULUS IV	
PHYS 201	WAVES, LIGHT, AND HEAT	3
PHYS 202	MODERN PHYSICS	3
Elective Requirements		
Select a minimum of 3 courses from departmental (PHYS) course offerings at the 300-level or above.		9
Total Credit Hours		35

Policies for the Minor in Physics

Program Restrictions and Exclusions

Students pursuing the minor in Physics should be aware of the following program restrictions:

- As noted in Majors, Minors, and Certificates (ga.rice.edu/undergraduate-students/academic-opportunities/majors-minors-certificates), i.) students may declare their intent to pursue a minor only after they have first declared a major, and ii.) students may not major and minor in the same subject.
- Students pursuing the major in Astronomy may not declare the minor in Physics.
- Students pursuing the major in Astrophysics may not declare the minor in Physics.

Transfer Credit

For Rice University's policy regarding transfer credit, see Transfer Credit (ga.rice.edu/undergraduate-students/academic-policies-procedures/transfer-credit). Some departments and programs have additional restrictions on transfer credit. The Office of Academic Advising maintains the university's official list of transfer credit advisors on their website: <https://oaa.rice.edu>. Students are encouraged to meet with their academic program's transfer credit advisor when considering transfer credit possibilities.

Departmental Transfer Credit Guidelines

Students pursuing the minor in Physics should be aware of the following departmental transfer credit guidelines:

- Requests for transfer credit will be considered by the program director (and/or the program's official transfer credit advisor) on an individual case-by-case basis.

Additional Information

For additional information, please see the Physics and Astronomy website: <https://physics.rice.edu/>

Opportunities for the Minor in Physics

Academic Honors

The university recognizes academic excellence achieved over an undergraduate's academic history at Rice. For information on university honors, please see Latin Honors (ga.rice.edu/undergraduate-students/honors-distinctions/university) (*summa cum laude*, *magna cum laude*, and *cum laude*) and Distinction in Research and Creative Work (ga.rice.edu/undergraduate-students/honors-distinctions/university). Some departments have department-specific Honors awards or designations.

Additional Information

For additional information, please see the Physics and Astronomy website: <https://physics.rice.edu/>