

# PHYSICS MAJOR – B.S.

MATH 21100	Calculus III	4
<b>Total Credits</b>		<b>62</b>

This B.S. degree requires 60 liberal arts credits out of the 120 credits required for graduation.

## Summary

Code	Title	Credits
	Physics B.S. Major Requirements	62
	Integrative Core Curriculum Requirements and Electives <sup>1</sup>	58
<b>Total Credits</b>		<b>120</b>

<sup>1</sup> *This major is approved to fulfill the Integrative Core Curriculum (<https://catalog.ithaca.edu/undergrad/programsaz/integrative-core-curriculum/>) requirement for the Natural Sciences perspective.*

## Degree Requirements

Code	Title	Credits
<b>CORE COURSES IN THE DEPARTMENT</b>		
PHYS 11000	Introductory Mathematical and Computational Methods for Physics	2
PHYS 12100	Light and Special Relativity	4
PHYS 12200	Momentum, Energy, and Heat	4
PHYS 12300	Classical Fields: Gravity, Electricity, & Magnetism	4
PHYS 21000	Intermediate Mathematical and Computational Methods for Physics	2
PHYS 22400	Classical and Quantum Waves	4
PHYS 26000	Intermediate Physics Laboratory	2
PHYS 27800	Professional Physics and Astronomy Seminar II	1
PHYS 31000	Advanced Mathematical and Computational Methods for Physics	4
PHYS 36000	Advanced Physics Laboratory	4
PHYS 299xx or 399xx	Introductory or Intermediate Physics Research	1
PHYS 499xx	Advanced Physics Research	2
<b>ADVANCED COURSEWORK</b>		
Advanced coursework tailored to the students' professional interests. The coursework must be carefully planned with the student's adviser before the end of the student's fourth semester.		
Select two of the following:		8
PHYS 32200	Classical Mechanics	
PHYS 32300	Electromagnetism	
PHYS 32400	Quantum Mechanics	
PHYS 32500	Thermal Physics	
Advanced courses in physics or astronomy: Four credits in physics or astronomy at the 300-level or above (excluding PHYS 399xx and PHYS 499xx)		4
<b>COMPUTATIONAL AND MATHEMATICS SKILLS</b>		
COMP 17100	Principles of Computing Science I	4
MATH 10800	Applied Calculus	4
	or MATH 11100 Calculus I	
MATH 11200	Calculus II	4