

Concentration in Physics

Required Courses

Course #	Course Name	Credits
PHY 2048, 2048L	Honors General Physics I with Lab	5
PHY 2049, 2049L	Honors General Physics II with Lab	5
	Physics Electives	15
	Mathematics Electives	3
PHY 4915	Honors Directed Independent Thesis Research	3
PHY 4970 IDS 4970	RI: Honors Thesis in Physics (two semesters)	3 6
	Total minimal concentration	34

Graduate school track: The minimal concentration listed above is not sufficient for admission to graduate study in physics. Students who wish to go to graduate school should take additional credits in physics and mathematics, including specific courses to be determined in consultation with an advisor. All students are encouraged to take advanced physics courses from the main campus in Boca Raton.

Pre-professional track: A specific example of an interdisciplinary physics concentration, the pre-professional physics track is intended for students who are interested in pursuing a career in medicine or possibly science education. Because of the nature of requirements for admission to medical school, there is very little room for non-science elective courses in this track. Students who wish to pursue a career in science education will most likely need additional education courses taken elsewhere. Students should consult with their thesis advisors for guidance in completing a track that meets their needs. In addition to the prerequisites, students must earn a grade of "C" or better in the following courses:

Additional Courses in the Pre-Professional Track

Course #	Course Name	Credits
BSC 1010, 1010L	Honors Biological Principles with Lab	4
BSC 1011, 1011L	Honors Biodiversity with Lab	4
CHM 2045, 2045L	Honors General Chemistry I with Lab	4
CHM 2046, 2046L	Honors General Chemistry II with Lab	4
CHM 2210, 2210L	Honors Organic Chemistry I with Lab	4

Course #	Course Name	Credits
CHM 2211, 2211L	Honors Organic Chemistry II with Lab	4
BCH 3033	Honors Biochemistry	4
Total Credits <i>(including minimal concentration)</i>		62

Physics Electives

Course #	Course Name	Credits
CHM 3400*	Honors Introduction to Physical Chemistry	3
CHM 4473**	Honors Quantum Chemistry	3
PHY 3101	Honors Introduction to Modern Physics	3
PHY 3221	Honors Intermediate Mechanics	4
PHY 3513*	Honors Thermal Physics	3
PHY 4151	Honors Computational Physics	3
PHY 4320	Honors Electricity and Magnetism	4
PHY 4523	Honors Statistical Physics	3
PHY 4604**	Honors Introductory Quantum Physics	3
PHY 4905	Honors Directed Independent Study in Physics	3
PHY 4936	Honors Special Topics in Physics <i>(may be repeated)</i>	1-4
PHZ 3601	Honors Relativity	3

* Either CHM 3400 or PHY 3513 can be used to fulfill the physics elective, but not both.

** Either CHM 4473 or PHY 4604 can be used to fulfill the physics elective, but not both.

Mathematics Electives

Course #	Course Name	Credits
MAC 2313	Honors Calculus with Analytic Geometry III	4
MAP 2302	Honors Differential Equations	3
MAS 2103	Honors Matrix Theory	3
MAT 4930	Honors Special Topics in Mathematics <i>(in consultation with advisor, may be repeated)</i>	1-4
COP 2000	Honors Foundations of Programming	3
COP 2220	Honors Introduction to Programming in C	3
COP 2930	Honors Topics in Computer Programming	3
COP 3012	Honors Advanced Programming	3
COP 3229	Honors Self-paced C++ Programming	1
COP 3254	Honors Self-paced Java Programming	1
COT 4930	Honors Topics in Computer Science	3