

Physics Major (BA)

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About

Physics is an experimental science in which its practitioners investigate nature at the most fundamental level on scales ranging from subatomic distances to the size of the universe. It is a quest to understand the origin and behavior of all forces: forces that account for the observed stability and in some cases instability of the atomic nucleus; forces that account for the stability of the atom; and forces that account for the stability of matter and the large-scale structures of the universe.

In this sense, it is the most fundamental of all physical sciences, and the successful physics student will be adept at solving problems using techniques that probe the fundamental building blocks of nature. Being trained to analyze phenomena at the most fundamental level makes the physics major versatile. Therefore, the student who successfully completes the degree in physics will not only be well prepared for graduate studies in physics, but also for employment in research-oriented industries or study in professional fields.

Program: [Physics](#)

Type: Bachelor of Arts

MAJOR (B.A.) (67 credits)

The BA program provides a solid foundation in Physics along with problem solving and critical thinking skills that are applicable to careers in Physics and beyond, including medicine, law, business, journalism, and education. The BA provides a more flexible curriculum than the BS and is a good match for students with interdisciplinary interests.

Program Notes:

- 3-credit PHY elective OR technical elective. Approval of the Physics chairperson required.

Major (B.A.) Required Courses:

Item #	Title	Credits
PHY 2410	University Phy:Mechanics	3
PHY 2411	Lab: Mechanics	1
PHY 2412	Univ Physics:Elec & Mag	3
PHY 2413	Lab:Elec & Magnetism	1
PHY 2601	Computational Phy Lab I	1
PHY 2603	Computational Phy Lab II	1
MAT 1500	Calculus I	4
MAT 1505	Calculus II	4
PHY 2414	Univ Physics: Thermo	3
PHY 2415	Lab: Thermodynamics	1
PHY 2416	Modern Physics	3
PHY 2417	Lab:Modern Physics	1
PHY 3310	Electronics	3
PHY 3311	Electronics Lab	1
PHY 4200	Mathematical Physics I	3
MAT 2500	Calculus III	4
MAT 2705	Diff Equation with Linear Alg	4
CHM 1103	General Chemistry Lab I	1
CHM 1151	General Chemistry I	4
CHM 1152	General Chemistry II	4
PHY 4100	Mechanics I	3
PHY 4301	Experimental Methods I	2
PHY 4303	Experimental Methods II	2
PHY 4000	Elec & Magnetism I	3
PHY 4001	Elec & Magnetism I Lab	1
PHY 5100	Quantum Mechanics	3
	PHY Elective for B.A.	3

Category Descriptions

PHY Elective for B.A.

Credits: 3

Select 1 class in PHY 3000:6700 for a total of 3 credits.