## **Physics Minor**

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### **About**

Physics is the human endeavor to understand the nature of matter, energy, and their governing interactions from the scale of subatomic particles to that of the cosmos. Through the interplay of theoretical effort and experimentation, physics strives to discover the mathematical laws of nature. As such, it both forms a foundation for a liberal arts education and provides a framework to address key challenges in our ever-changing technical world.

The Department of Physics at Villanova University is a nurturing, supportive, and inclusive academic community that strives to reflect the values of the University. We undertake our mission to educate undergraduate students in a broad range of experimental, theoretical, and computational methods through classroom and laboratory experiences. Our students address fundamental questions of nature through meaningful participation in faculty-led research that connects them with physicists around the world. The critical thinking and problem-solving skills learned by our students enable them to engage the diverse world beyond Villanova, whether they continue in the field of physics or choose to apply their educational experience to the challenges of another field.

**Program:** Physics **Type:** Minor

## MINOR: Physics (31 credits)

The Physics Department offers a minor in physics to qualified students whose major area of study lies outside of physics. In general, a student in any area of study, other than physics, may obtain a minor in physics.

#### Program Notes:

- Courses that fulfill minor requirements may be used to fulfill other requirements (i.e., primary major, core curriculum, minors, concentrations, or free electives).
- The Minor in Applied Physics for Math Majors requires all of the Math courses required for the Math degree, plus MAT 4310, PHY 2410/2411, through PHY 2416/2417, PHY 3310/3311, and PHY 4301/4303

Course	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 2414	Univ Physics: Thermo	3
PHY 2415	Lab: Thermodynamics	1
PHY 2416	Modern Physics	3
PHY 2417	Lab:Modern Physics	1
	Physics Elective for Minor	15

# **Category Descriptions**

## Physics Elective for Minor

Credits: 15

Select 5 Classes of 3 or more credits in PHY 2418:9999 for a total of 15 credits.