

# PHYS 233C : Physics III (Calculus-Based)

Topics include sound, optics, electromagnetic waves, relativity, introduction to quantum mechanics, atomic physics, and nuclear physics. A graphing calculator is required.

**Credits** 4

**Lab/Practicum/Clinical Hours** 3

**Lecture Hours** 3

**Prerequisite Courses**

PHYS 232C

**Learning Outcomes**

- State, interpret, and apply the definitions of physical quantities related to sound, optics, electromagnetic waves, relativity, quantum mechanics, and atomic and nuclear physics.
- Set up and solve problems, including word problems, in modern physics analytically using algebra, trigonometry, and calculus.
- Solve problems in modern physics using numerical and graphical methods.
- Set up laboratory equipment safely and efficiently, plan and carry out experimental procedures, identify and reduce sources of error, analyze and interpret data, propagate error, summarize findings in a formal laboratory report, and maintain a laboratory notebook.