

Physics 135/163: Physics Lab

Content of the Course

This laboratory course covers topics in elementary mechanics. Goal: to witness some of the laws and equations of physics "in action." In this course, we will not be "verifying" these laws; they've been tested for hundreds of years and seem pretty sound. Instead, we will concentrate on making connections between what you observe in the lab and the theoretical concepts and equations discussed in lecture and in the textbook.

This separately graded course will, in some ways, parallel the material covered in lecture, but the two courses are not closely tied together. Sometimes you will encounter concepts in the laboratory course first, and at other times you will encounter concepts first in lecture. Occasionally, you may even perform an experiment related to material that is not covered in the lecture class.

Prerequisites

For Physics 135: concurrent enrollment in Physics 125.

For Physics 163: concurrent enrollment in Physics 153.

This schedule, the lab study guide, and other docs are available at: www.plu.edu/physics/courses/

Fall 2025 Schedule of Laboratory Topics

Week of September 1	No Labs
Week of September 8	Significant Figures AND Intro to Computational Analysis
Week of September 15	Acceleration in Freefall: Tape Timer and Excel
Week of September 22	Vector Addition/Force Table
Week of September 29	Projectile Motion: Video Analysis
Week of October 6	Lab Quiz #1 (see study guide on website)
Week of October 13	No Labs (Week of mid-semester break)
Week of October 20	Friction Forces
Week of October 27	Collisions in 1-D
Week of November 3	Mass and Rotation
Week of November 10	Conservation of Angular Momentum
Week of November 17	Standing Waves: Waves on a String
Week of November 24	No Labs (Week of Thanksgiving)
Week of December 1	Lab Quiz #2 (see study guide on website)
Week of December 8	No Labs (Finals Week)