

PHYS 120: Physics I

Fall 2026

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Abstract

Particle dynamics; force and momentum; rotation and static equilibrium; kinetic and potential energy; special relativity.

Text:

For Physics 120, we will use University Physics (OpenStax).

Here, you can find the source materials. This is available for free online. You can order these books online if you need a hard copy. We will use the contents from volume 1 and 3 for this course. We have created a booklet with relevant chapters from those two volumes and it is available as a PDF copy in your bright space.

Here are the links:

<https://openstax.org/details/books/university-physics-volume-1>

<https://openstax.org/details/books/university-physics-volume-3>

Assignments:

This will be done using bright space.

Labs: All labs will be in person. Your lab coordinator will send you information about labs.

Marking Scheme

	A	
–Assignments	15%	
–Labs	20%	Labs must be passed (above 50%) to pass course
–Midterm exam.	25%	
–Final exam	40%	

Topics covered in the course

Introduction (units and dimensional analysis)

Vectors

Motion Along a Straight Line

Motion in Two and Three Dimensions

Newton's Laws of Motion

Applying Newton's Laws

Work and Kinetic Energy

Potential Energy and Conservation

MIDTERM – 24 OCT, 2026 (2.30 pm to 4.00 pm)

Momentum, Impulse and Collisions

Rotation of Rigid Bodies

Torque and Static Equilibrium

Relativity

FINAL - To Be Determined

Lectures will be given during the allocated lecture times: Tuesdays, Wednesdays, and Fridays from 1.30 to 2.20 pm PST. Lecture notes will be posted before the lecture. Students are expected to work on the problems in slides during the lecture. Assignments will be done using Bright space.