PHYS 120: Physics I
Fall 2024
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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	**B**	
–Assignments	15%	15%	
–Labs	20%	20%	Labs must be passed (above 50%) to pass course
–Midterm exams	25%	15%	
–Final exam	40%	50%	

The scheme used (**A** or **B**) is the one that gives you the highest mark

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

MIDTERM 1 - OCT, 2024 (Date to be determined)
Work and Kinetic Energy
Potential Energy and Conservation
Momentum, Impulse and Collisions

MIDTERM 2 – Nov, 2024 (Date to be determined)
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 2.30 pm PST. Lecture notes will before the lecture. Students are expected to work on the problems in slides during the lecture. Assignments are biweekly.