Phys 123X: College Physics I Syllabus

Fall 2024

Instructor Information

Instructor	Email	Office Location & Hours
Wang Xu (Caleb)	wxu3@alaska.edu	REIC 110, TBD

General Information

Course Description

Physics 123 is a four-credit course. It offers an overview of basic physics. We will begin with the basic language of physics, including how to record measurements and how to describe motion. Then, we will learn Newton's three laws of motion and a few important concepts: energy and momentum, etc. We will then move on to fluid mechanics and waves (including sound waves). Finally, we will end with temperature, heat, and the laws of thermodynamics.

Lecture Schedule

Lectures: REIC 201/Mondays, Wednesdays, and Fridays, 9:15 am - 10:15 am

Required Text

Physics: Principles with Applications, Douglas C. Giancoli, 7th Edition, ©2014 | Pearson ISBN 9780321625922

Grading Policy

Homework	Attendance	Lab	Quiz	Midterm 1	Midterm 2	Final	Total
20%	5%	10%	15%	15%	15%	20%	100%

Your final grade for this course will be based on a curve. The average of the curve will be the breakpoint between letter grades B- and C+. The standard deviation of the grade point distribution will separate subsequent letter grades.

Lecture Schedule

Week	Topic	Reading	Dates	HWK Due Date
Week 1	Introduction, Measurement, Estimation	Ch1:1-4, 4-8*, Quiz 1	08/26,08/28,*08/30*	09/06
Week 2	One Dimension Kinematics	Holiday, Ch2:1-4, 5-8	~~09/02~~,09/04,*09/06*	09/13
Week 3	Two Dimension Kinematics	Ch3:1-5, 5-8, Quiz 2	09/09,09/11,*09/13*	09/20

Week	Topic	Reading	Dates	HWK Due Date
Week 4	Newton's Laws	Ch4:1-4, 5-8, Mid-term 1	09/16,09/18, *09/20*	09/27
Week 5	Circular Motion & Gravitation	Ch5:1-6, 6-10, Quiz 3	09/23,09/25, *09/27*	10/04
Week 6	Work & Energy	Ch6:1-5, 5-10, Quiz 4	09/30,10/02, *10/04*	10/11
Week 7	Linear Momentum	Ch7:1-4, 5-10, Quiz 5	10/07,10/09, *10/11*	10/18
Week 8	Rotational Motion	Ch8:1-5, 5-9, Quiz 6	10/14,10/16, *10/18*	10/25
Week 9	Static Equilibrium	Ch9:1-4, 4-7, Mid-term 2	10/21,10/23, *10/25*	11/01