

Physics 50 Fall 2018

Section	PHYS-050 02085 CRN: 02085
Lecture Instructor	Samuel MaQuilon
Email	maquilonsamuel@fhda.edu
Office Hours	Fri 12:30pm-1:30pm; Or by Appointment.
Lecture Hours	Mon-Thurs 10:30-11:20am
Lecture Room	S35
Textbook	<i>Physics, 4th ed, James S. Walker</i>
Prerequisites Advisory:	Mathematics 49B and Physics 10
Final Exam Date	Thursday, Dec 13, 9:15-11:15 a.m.

Topics

This course introduces Newtonian Classical Mechanics without calculus. Students should leave this course with an understanding of how to make mathematical models of systems of interest and then apply basic Newtonian principles to discover how these systems behave. This sort of quantitative reasoning is useful not only for understanding the physical world we see around us, but also in any technical field including engineering and computer science. We will cover kinematics, which is motion of objects in 1 and 2 dimensions with some knowledge of their accelerations and other quantities, but without regard to forces acting on them. This will include projectile motion and relative motion. We will also cover dynamics, which determines the motion of objects by reasoning about forces acting on them, using Newton's laws, study different types of forces, and maybe I can introduce work, energy, and power if time allows. The goal of this course is to prepare students to take Physics 4A, if they so choose.

Chapter 1: Intro & Dimensional Analysis

Chapter 2: 1-D Kinematics

Chapter 3: Vector Analysis

Chapter 4: 2-D Kinematics & Projectile Motion

Chapter 5: Newton's Laws

Chapter 6: Frictional Forces, String and Springs

Attendance

In order to comply with federal guidelines De Anza College requires students to attend class and class attendance records to be kept. A student may miss a few classes for medical or personal reasons, however, unexplained absence of more than 2 consecutive days or frequent absences

will result in a student being dropped from the course, and unexcused missed in-class quizzes cannot be made up. Very Late arrivals count as absences at my discretion.

Homework

The homework sets from the book will not be collected or count towards your grade, however, it is very important you do this homework as part of your study! This will make concrete the ideas discussed in the lectures by allowing you to apply them immediately. I will try to set almost exclusively problems that have answers in the back of the textbook. If you have difficulty with the homework you can come to office hours, ask me just before lecture, work together with other students, or go to the Math and Science Tutorial Center (**Student Success Center**). Doing these problems will help you prepare for the tests and quizzes.

The set problems should not be viewed as the only problems you can do: you are strongly encouraged to look through all of the problems at the end of each chapter and consider how each should be approached. You should read the textbook and make notes from it.

Quizzes

There will be 3 quizzes, in-class or take home, on the material covered in the lectures. The quiz questions will usually be based on homework questions or problems discussed in class. Take home quizzes are due the next day at the beginning of the class. **No make-up quizzes**. Make sure you do the homework, so you can do well on the quizzes!

Tests

There will be two in-class midterms, in addition to the final exam. In order to do well on the tests, please read the textbook and do the homework problems.

Note: If there is any dispute about marking, I will consider it only within two school days of the paper being returned to you.

Cheating

In the case that a student is found to be cheating on a piece of work or test, the grade for that will be zero. Plagiarism, which includes copying answers found on the internet, is cheating. You are encouraged to use resources you find online, but you must write up answers on your own, in your own style, and you must understand what you are writing.

Evaluation

3 in-class or take home quizzes 20%

Two Midterms (20% each)

Final 40%

Projected Grading Scheme:

96% → 100% = A+

90% → 95% = A

88% → 89% = A-

86% → 87% = B+

78% → 85% = B

76% → 77% = B-

74% → 75% = C+

66% → 73% = C

64% → 65% = C-

54% → 63% = D

0% → 53% = F

Student Learning Outcome(s):

*Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of mechanics.