

Physics 50 Fall 2020

Section	PHYS-050 CRN 02085
Lecture Instructor	Samuel MaQuilón
Email	maquilonsamuel@fhda.edu
Office Hours	Online. Fri 12:30pm-1:30pm; Or by Appointment.
Lecture Hours	Mon-Thurs 10:30-11:20am (w/ Recorded Lectures posted)
Lecture Room	Online
Textbook	<i>Physics, 4th ed, James S. Walker</i>
Prerequisites Advisory:	Mathematics 49B and Physics 10
Final Exam Date	Thursday 9:15am – 11:15am
SLO	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.

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 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.

Chapters covered in the Book:

- 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
- Chapter 7: Work and Kinetic Energy

Chapter 8: Potential Energy and Conservation of Energy

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

I will be assigning selected homework's from each Chapter in the textbook that will count towards your grade. (See grading scale) **All HW's are due on the designated due date. Please scan your HW and upload onto the Canvas website.** If you have an issue that prevents you from finishing a piece of homework on time, you must talk to me or email me about it at as soon as you realize it and least 1 day prior to the due date. I will consider each request on a case-by-case basis. No Late homework will be accepted. For the homework questions that are not selected to be turned in will not be collected nor count towards your grade, however, it is very important to work on both collected and uncollected homework's as part of your study! I have also worked out some example problems in the class notes which I will send you after every lecture. This will make concrete the ideas discussed in the lectures by allowing you to apply them immediately. If you have difficulty with the homework please send me an email and 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 the problems at the end of each chapter and consider how each should be approached.

Quizzes

There will be 3 quizzes, in-class, on the material covered in the lectures. The quiz questions will usually be based on homework questions or problems discussed in class. **No make-up quizzes.** Make sure you do the homework, so you can do well on the quizzes! **It is your responsibility that your Quiz is scanned clearly and legibly and uploaded onto Canvas or emailed to me directly on or before the due time.**

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, do the homework problems and review the class notes. **It is your responsibility that your Midterms & Final are scanned clearly and legibly and posted on Canvas or directly emailed to me on or before the due time.** If you have trouble sending your

exams by email, please let me know prior to the exam dates so we can arrange an alternative option.

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.

Important Dates

Online: See De Anza website for updates.

October 3, Last day to [add classes](#)

October 4, Last day to [drop classes](#) without a "W"

October 16, Last day to request "[Pass/No Pass](#)" for 12-week classes

November 9, Veterans Day holiday: Campus closed

November 13, Last day to [drop classes](#) with "W"

November 26-29, Thanksgiving holiday: Campus closed

Evaluation

Quizzes 15%

HW 5%

Midterms 40% (20% each)

Final 40%

Projected Grading Scheme:

96% → 100% = A+

90% → 95.9% = A

88% → 89.9% = A-

86% → 87.9% = B+

78% → 85.9% = B

76% → 77.9% = B-

74% → 75.9% = C+

66% → 73.9% = C

64% → 65.9% = C-

0% → 53.9% = F

54% → 63.9% = D

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.