# DE ANZA COLLEGE – PHYSICS 50 – Winter 2018

Instructor:	Alex Kwiatkowski
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Office:	S13
Office Hours:	T Th, 5:15 - 5:30PM and 7:20 - 7:35 (S13 or S34)
Lecture Hours:	T Th, 5:30 – 7:20PM (S34)
Final Exam Date:	Tuesday, March 27, from 6:15 – 8:15PM
Text:	PHYSICS 4th Edition Vol. 1 by James S. Walker (optional)
Advisory:	Mathematics 43 and Physics 10.

Note: Last day to drop a class with a "W" is Friday, March 2. Students who do not drop by this date will be given the appropriate grade for their achievement in the class at the end of the quarter.

#### **HOMEWORK**

Homework will be assigned on a regular basis and it WILL be collected. The method by which each homework is graded will be discussed in class and written down on the homework assignment itself. The relative weight of each homework assignment will be determined based on the length and difficulty of each assignment. In total, homework will account for 35% of the final grade. Student collaboration on homework assignments is allowed and encouraged, but each student must submit their OWN write-up to get credit. Homework submissions that are simply copied from any other submissions will be treated as a violation of academic integrity.

If you are having difficulties with the class/homework, here are some recommendations for where to get help:

- 1. Ask for help during class and attend office hours.
- 2. Work together and discuss problems with other students in the class
- 3. Math & Science Tutorial Center.

On the homework and exams, you need to show all your work in complete detail in order to receive full credit. Your solutions should show your start point, step-by-step process, and the logic that was used to obtain the answer. No credit will be given if no work is shown even if you obtain the correct answer to the problem.

#### **EXAMS**

There will be three in-class exams and a comprehensive final. Exact dates for exams will be given a week before each exam, but the plan is to have them during weeks 3, 7, and 9. The exam format may be work-out problems, multiple-choice, conceptual, or a combination of the three. In general, calculators are not necessary and are not permitted during exams, and this will be discussed in class before each exam. The key to success on the exams is preparation; do the homework and make sure you understand it. Ask questions about anything and

everything that you don't already understand! (ask during class, during office hours, or by sending the instructor an email). There are no make-up exams. If you miss an exam you will get a ZERO for that exam. At end of quarter your scores on the three in-class exams will be averaged and that average will replace the lowest in-class exam grade. You must take the final in addition to ALL three in-class exams in order to replace the lowest exam score by the average of the four scores. For emergency illness or other serious conflicts, email the instructor immediately.

Note: If there is a dispute in the grading of any quiz or exam I \*may\* consider looking at it a second time, but the issue must be brought to my attention the next class after the exam is handed back.

## **GRADING**

Grades will be based on the following components with the weights as follows:

Homework	35%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Final Exam	20%

## **OBJECTIVE**

This is an algebra-based course in Classical Mechanics. The main objective of the course is for the student to understand the laws/theories and principles of Classical Mechanics in order to be able to describe the motion of a system so that we can better understand the physical world around us. The foundation laws of Classical Mechanics are Newton's Laws of Motion. Thus, we can equivalently state that the main objective is for the student to learn and understand Newton's Laws of Motion from a conceptual and practical viewpoint. This course will also help you develop the problem- solving skills as a preparation for Physics 4A. Classical Mechanics is often divided into two parts:

- Kinematics The description of the motion of an object without regard to the forces causing the motion. We will describe the motion of an object (system) moving in 1-D and 2-D.
- 2. Dynamics The description of the motion of an object with regard to the forces that cause the motion.

We will use Newton's Laws of Motion to help us describe the motion of an object (system) with regard to the forces acting on an object.

In our study of kinematics we will learn how to analyze the motion of a particle in 1-D and 2-D. In dynamics we will learn to analyze the motion of a particle (system) by using Newton's Laws of Motion.

## ATTENDANCE:

You are expected to attend the first class of the quarter or your spot will be given to the next

student on the waitlist. If you are not able to attend the first class, email the instructor at some point on the day of the first class to avoid getting dropped.

#### De Anza College Academic Integrity

"The following types of misconduct for which students are subject to disciplinary sanctions apply at all times on campus as well as to any-off campus functions sponsored or supervised by the college: cheating, plagiarism or knowingly furnishing false information in the classroom or to a college officer"

## DISRUPTIVE BEHAVIOR POLICY

Any DISRUPTIVE BEHAVIOR during class will NOT be tolerated. If a student is in any way disruptive during the class, the student will be given a warning. If the problem continues, the student will be asked to leave the class and a formal disciplinary report will be filed with the college disciplinary officer. The incident will be recorded in your college record and will be sent with your transcripts to any university/college requesting student records.

## 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.