## DE ANZA COLLEGE - PHYSICS 50 - FALL 2020

| Instructor: | Eduardo Luna |
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| Email: | lunaeduardo@fhda.edu |
| Homepage: | http://faculty.deanza.fhda.edu/lunaeduardo |
| ZOOM Office Hours: | MTWTH 1:30-2:30PM, F 8:30-9:30AM. Instructor will email link to ZOOM meeting. Office hours will be LIVE. |
| Lecture Hours: | Recorded ZOOM lectures will be available to view starting at 8:30AM from M-TH. Instructor will email link to recorded ZOOM lectures. |
| Final Exam Date: | Wednesday, December 9, from 9:00-11:00AM |
| Text: | PHYSICS $4^{\text {th }}$ Edition Vol. 1 by James S. Walker |
| Required Calculator: | Any type |
| Advisory: | Mathematics 43 and Physics 10. |

The quizzes and exams for the quarter will be available on Canvas. Make sure that you have access to Canvas from MyPortal to be able to have access to the quizzes and exams. Here is the link to getting help on using Canvas: https://www.deanza.edu/online-ed/help.html

Note: Last day to drop a class with a "W" is Friday, November 13. 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.

## 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 problemsolving skills as a preparation for Physics 4A. Classical Mechanics is often divided into two parts:
a) 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.
b) 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

Lectures will be pre-recorded on ZOOM and available to view starting at 8:30AM from M-TH. I will email the class the link to each of the lectures. You are expected to view the lectures on a daily basis at your convenience for the rest of the quarter. If you stop attending class for any reason, it is your responsibility to ensure being dropped or withdrawn from the course in order to avoid an "F" in the class..

## HOMEWORK

Homework will be assigned on a regular basis but will NOT be collected. However, it is your responsibility to have the homework completed before the following lecture. It is essential to your success in this course that you put a solid effort into the homework. This is how you will learn physics and succeed in the class. (The quizzes you will be taking will generally be based on the homework problems assigned). If you are having difficulties with the class/homework, I strongly encourage you to attend office hours. I will be having live ZOOM office hours daily.

On the homework, quizzes, as well as on the exams, you need to show all your work in complete detail in order to receive full credit. Your solutions should show your step-by-step process and 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.

## 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"

## QUIZZES

There will be a quiz every Thursday from 2:30PM $-3: 15 \mathrm{PM}$. The quizzes will be available in Canvas during this time. This is the time you have to download and upload the quizzes from Canvas. The quizzes will generally be based on homework and lecture material from the corresponding week. Therefore, it is to your advantage to attend every lecture and have ALL the homework completed. If you miss a quiz you will get a ZERO for that quiz. NO MAKE-UP QUIZZES! Lowest quiz score will be dropped at end of quarter.

## EXAMS

There will be three 50 minute exams and a comprehensive lecture final. Exact dates for exams will be given at least four days prior to each exam. The exam format may be work-out problems, multiple-choice, conceptual, or a combination of the three. The exams will be from 1:30PM 2:45PM. The exams will be available in Canvas during this time. This is the time you have to download and upload the exams from Canvas. The key to the success on the exams is preparation; DO THE HOMEWORK, attend the lectures, read the textbook and make sure you understand it, and ask questions if you don't understand. There are no make-up exams. If you miss an exam you will get a ZERO for that exam. At end of quarter I will take the average of the lowest and highest exam scores and replace the lowest with the average. You must take ALL 3 exams in order to replace the lowest exam score by the average!

Note: If there is a dispute in the grading of any quiz or exam I will consider looking at them a second time only if it is handed back to me within 2 school days after I return them.

## GRADING

Grades will be based on the following components with the weights shown:

| Quizzes | $20 \%$ |
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| Exam 1 | $20 \%$ |
| Exam 2 | $20 \%$ |
| Exam 3 | $20 \%$ |
| Lecture Final | $20 \%$ |

Grades will be determined as follows:

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\begin{array}{r}
88 \%--->100 \%=A \\
76 \%--->87 \%=B \\
65 \%--->75 \%=C \\
54 \%--->64 \%=D \\
0-->53 \%=
\end{array}
$$

## 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.
*Gain confidence in taking precise and accurate scientific measurements, with their uncertainties, and then with calculations from them, analyze their meaning as relative, in an experimental context, to the verification and support of physics theories.

