DE ANZA COLEGE – PHYSICS 4A – FALL 2012

Instructor: Eduardo Luna
Email: lunaeduardo@fhda.edu
Homepage: http://faculty.deanza.fhda.edu/lunaeduardo
Office: S55A
Office Phone: 408-864-8666
Office Hours: MTWTH 12:40-1:30PM, F 9:30-10:20AM
Lecture Hours: M-F 8:30-9:20AM   (S35)
Lab Hours: MW 9:30-12:10PM   (Room S11)
Final Exam Date: Tuesday, December 11 from 7:00 – 9:00AM
Text: Physics for Scientists and Engineers (Vol. 1), 8th Edition, Serway/Jewett
Prerequisites: Physics 50 with a grade of C or better, or the equivalent (including high school physics); Completion of Math 1A with a C or higher and concurrent enrollment in Math 1B (or already completed).

__Note: Last day to drop a class with a "W" is Friday, November 16. 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 a calculus-based course in Classical (Newtonian) Mechanics. The main objective of the course is for you to understand the laws/theories and principles of Classical Mechanics (especially Newton's Laws of Motion) in order to be able to describe the motion of a system (position, velocity, acceleration, ….) so that we can better understand the physical world around us. 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 and other formulations of such laws (Work and Kinetic Energy Theorem, Conservation Energy, Linear and Angular Momentum). Law of gravity will also be discussed.

ATTENDANCE
You are expected to be in class at the beginning of each class for the rest of the quarter. An attendance sheet will be passed at the beginning of class. If you miss signing the attendance sheet four or more lectures you may find yourself dropped from the class. However, it is your responsibility to ensure being dropped or withdrawn from the course in order to avoid an "F" in the course if you stop attending lecture or lab.

HOMEWORK
Homework will be assigned on a regular basis but will not be collected. Although the homework is not collected, it is **YOUR** responsibility to have it completed by the following day after it is assigned. 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 will generally be based on homework and lecture material).   If you are having difficulties with the lecture/lab/homework, here are some things that I recommend to help you succeed in the class:

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 (Student Success Center).

On the homework, quizzes, and exams, you will 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.** Answers to homework even problems will be posted on my homepage.

QUIZZES
There will be a quiz every Friday at the end of class. The quizzes will generally be based on homework problems and lecture material from Thursday of previous week to Wednesday of the current week. If you miss a quiz you will get a **ZERO** for that quiz. **NO MAKE-UP QUIZZES!** At the end of quarter the lowest quiz score will be dropped.

EXAMS
There will be three in-class exams and a comprehensive 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. I will let you know before the exam if you can use calculators. The key to the success on the exams is *preparation*; read the textbook and make sure you understand it, ask questions if you don't understand, **DO THE HOMEWORK,** and attend the lectures. 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 three in-class exams scores and replace the lowest with the average. You must take all three exams in order to replace the lowest exam score by the average of the three scores!

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	15%
Lab	20%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Final Exam	20%

Grades will be determined as follows:

88% --->100%	= A
76 %---> 87%	= B
65% ---> 75%	= C
54% ---> 64%	= D
0 ---> 53%	= F