

PREP PHYSICS PHYSD050.62

Instructor: Farzad Taiedi

Time and location: TR 5:30 – 7:20 (DA S-34)

Email: taiedifarzad@fhda.edu

Homepage: <https://sites.google.com/site/physicsclub/>

Textbook: PHYSICS 4th Edition Vol. 1 by James S. Walker

Prerequisites: Advisory: Mathematics 43 and Physics 10.

Office Hours: TR 4:30 – 5:30 (DA S-13)

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:

- 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.

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”

This statement implies that if a student intentionally copies another student's work or a ‘solution manual’ the student will be subject to disciplinary action.

QUIZZES

There will be at least six quizzes, usually on the second session, at the end of class. The quizzes will generally represent that week's quiz practice and lecture material. Therefore, it is to your advantage to attend every lecture. If you miss a quiz you will get a ZERO for that quiz.

HOMEWORK

Students are required to register online to access the homework website: <http://www.masteringphysics.com/>, and do homework online. I encourage you to form small groups for discussing the materials presented in the class, in the book and the homework. Try to explain to each other; explaining to others is the best way to clarify your understanding. However, do not split the work load; the final homework, solutions and their entries should be done individually. Make sure you don't fall behind the lectures by attempting all the homework problems and submitting it before the due date. It is strongly recommended that students go through the following steps before attempting the homework problems:

Study the lecture notes and the relevant chapter of the textbook.

Study problems that are worked out in the lecture and those in the textbook, noting the goal and strategy used.

You will have an access code in a package in your book if you bought it new. For a used book you will have to purchase access to the online homework separately at about \$50. Follow the instructions inside the package called **MasteringPhysics: Student Access kit** for online registration. For this you need:

- Your personal access code, which is beneath the pull-tab inside your package.
- A valid email address.
- The general course ID, which can be obtained from instructor and your student ID.

EXAMS

There will be one midterm exam 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 and will be based on the homework. I will let you know before the exam if you can use calculators. 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.

Note: If there is a dispute in the grading of any exam homework, 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.