

Winter 2006

DEPARTMENT OF PHYSICS
PHYSICS 110B - MECHANICS

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COURSE SCHEDULE:

Lectures:	MWF	9-9:50a	WLH 2204
Discussion/problem section:	W	5-5:50p	WLH 2208

WEB PAGE:

<http://physics.ucsd.edu/students/courses/managed/winter2006/physics110b/>

TEXT: Thornton/Marion, Classical Dynamics, 5th ed

COURSE DESCRIPTION:

Classical mechanics deals with phenomena that you are quite familiar with, the motion of bodies in the classical realm. That means you stay away from regimes where less familiar phenomena occur, such as microscopic scales or speeds close to the speed of light. Yet it is necessary to study classical mechanics before you venture into these other regimes. You will find that it is a fascinating subject. You will learn to use sophisticated mathematical techniques to solve problems you had no idea how to solve before. The same techniques will be useful in other areas of physics you will study later. It is essential to have a good understanding of classical mechanics to work in essentially any area of physics. This quarter we cover the dynamics of systems of particles and rigid bodies, dynamics in noninertial frames, waves in continuous media, and special relativity.

COURSE REQUIREMENTS:

Homework problem sets will be assigned weekly on Mondays, look for them in the course web page. These are due the following Monday (at the lecture) for grading and credit. Graded homeworks will be returned, and solutions posted, the following Friday. Late homeworks may be turned in for half credit before the solutions are posted (Friday). At the problem session the TA will discuss problems and questions relevant to the homework and lecture topics.

There will be two (closed book) midterms in the 4th and 8th weeks, with problems of similar difficulty level as the homework problems. *Attendance at midterms is required.*

GRADING:

The grading policy is as follows:

Homework	40%
Midterm 1	15%
Midterm 2	15%
Final Exam	30%

TENTATIVE SCHEDULE (subject to change):

Dates	Chapters covered	# of lectures
Weeks 1 and 2	9	5
Week 3	10	3
January 30, 2006	Midterm 1: 9,10	
Weeks 4 and 5	11	6
Weeks 6 to 8	13	6
March 5, 2006	Midterm 2: 11, 13	
Weeks 9 and 10	14	6
tba	Final (all)	