Syllabus

PHY 321 - Classical Mechanics I

www.pa.msu.edu/people/pratts/phy321

Instructor: Scott Pratt, prattsc@msu.edu

Lectures: MWF 3:00-3:50 PM, 1420 Biomedical & Physical Sciences Bldg.

Office hours: 4:00-5:30, Mondays, 2133 NSCL

Grader: Twymun Safford, saffordt@msu.edu

Suggested Text:

John R. Taylor, Classical Mechanics, Univ. Sci. Books (2005)

S.T. Thornton and J.B. Marion, Classical Dynamics of Particles and Systems, Brooks/Cole (2004)

Lecture notes online

Lecture notes are succinct, so students should find a text useful.

Topics:

The course will cover the following material from Chapters 1-9 of Taylor:

- Single-particle equations of motion
- Damped and driven oscillators
- Gravitation and central force motion
- Collisions
- Lagrangian mechanics

Calendar and Grading:

Homework	Due Fridays	10%
Weekly quizzes	Fridays	15%
First Midterm	Mon. Feb. 18	20%
Second Midterm	Mon. Mar. 25	20%
Extra Credit Assignment	Fri. May. 26	10%
Final Exam	Wed. May 1, 5:45-7:45 PM, Location TBA	35%

Grading Scale:

4.0	90%
3.5	80%
3.0	70%
2.5	60%
2.0	50%
1.5	40%
1.0	30%

Course structure:

Much of class time will be spent with students working in groups, assisted by the instructor. Several assignments will involve programming in either PYTHON or C++.

Some advice:

Read material **BEFORE** class. Working in groups is encouraged.

RCPD Accommodations:

Please inform instructor if you require accommodations for exams.

Additional Information

Check course web site for announcements.