Physics A300: Classical Mechanics I

Syllabus and Course Information – Fall 2003

Initial Version – 2003 August 26

Course Information

Lectures:
TR 9:30-10:45am, 223 Monroe, beginning August 26 and ending December 4

Holidays (no lecture):
Oct. 14: Fall Break; Nov. 27: Thanksgiving.

Textbook:
Mechanics, by Keith R. Symon

Instructor:
Dr. John T. Whelan;   464 Monroe, 865-3641;   `jtwhelan@loyno.edu`
Office Hours: TWR 2:00-3:00pm, or by appointment

Prerequisites:
PHYS A110-A111 (Basic Physics I-II); MATH A259 (Calculus III)

Scope of Course:
PHYS A300 and A301 will cover between them most of Symon. Phys A300 is expected to cover most of the first seven chapters. Topics to be covered include a review of Newtonian mechanics, followed by more detailed studies of one-dimensional problems (including harmonic oscillations) and multi-dimensional problems (including central force motion), systems of particles, rotational motion, gravitation, and moving coördinate systems.

Exams:
Two preliminary exams, to be given in class.
Final exam to be held Thursday, December 11, 9:00-11:00am.

Homework:
Quasi-weekly problem sets, with due dates posted on the problem sets. Homework will not be accepted after solution sets have been distributed.

Course Website: `http://www.loyno.edu/~jtwhelan/A300/`

Course Listserv: `physa300002@loyno.edu`

Please subscribe ASAP by sending email to `majordomo@loyno.edu` with `subscribe physa300002` in the *body* of the message.

All students are expected to be subscribed to the course listserv from address which they read frequently, as organizational announcements may be sent there. Students are also encouraged to use the listserv to discuss concepts and issues related to the course.

I will also use the listserv to respond to student questions, so that the entire class can benefit from the exchange. If you email me a question which you don't want shared with the class, you must specify that explicitly in the email. (Similarly, if you want to ask a question anonymously, specify that you'd like your name left out of any reply posted to the listserv.)

Course Policies

Attendance:
There is no attendance grade for the course, and no penalty for missing class. However, most students will find themselves at a disadvantage on the homeworks and exams if they neglect to take advantage of the full range of tools (including both lectures and reading) to gain understanding of the material.

Class Disruptions:
Please try to avoid disrupting the class by arriving late and/or leaving early. Please switch off all cell phones and beepers if possible. In case of an urgent need to be reachable during 50 minutes of lecture (on-call EMT, critically ill loved one, etc.), please use silent/vibrate mode.

Collaboration:
Collective brainstorming is a time-honored tool of physicists attacking a problem, be they freshmen or tenured professors. That said, working through the homework problems is an important aid to gaining mastery of the material, and a student who simply transcribes the solution of another student or of the group will likely have trouble come exam time.

In the interest of learning proper academic procedures, you should acknowledge any outside help you get on homeworks, whether from other students or from references outside the textbook.

Working together on exams or copying off of someone else's test is of course cheating and will not be tolerated.

Grades:
Grades will be based on a linear combination of the overall homework grade, prelim exam grades, and final exam grade, each graded on the scale below. Your score on each component of the course (each prelim, the final, and all the homeworks together) will be converted to a numerical "grade point" score, and the weighted average of those four scores will be your final grade, converted to a letter grade according to the scale below. The weights for the final grade will be 20% homework, 20% for each prelim exam, and 40% final exam. Midterm grades will be based on homework to date and the first prelim.

Grading Scale:

3.75–∞	A	1.75–2.25	C
3.25–3.75	B+	1.25–1.75	D+
2.75–3.25	B	0.75–1.25	D
2.25–2.75	C+	$-\infty$–0.75	F

Special Arrangements for Students with Disabilities:
Students with disabilities who wish to receive accommodations in this class should contact Disability Services at 865-2990 as soon as possible so that warranted accommodations can be implemented in a timely fashion. Disability Services are located in the Academic Enrichment Center, Monroe Hall 405.