

Physics A301: Classical Mechanics II

Syllabus and Course Information – Spring 2003

Initial Version – 2003 January 13

Course Information

Lectures:

MWF 12:30am-13:20pm, 221 Monroe, beginning January 13 and ending May 7

Holidays (no lecture):

Jan. 20: Martin Luther King Jr. Day; Mar. 3 & 5: Mardi Gras; Apr. 14, 16, 18 & 21: Easter Break;

Textbook:

Classical Dynamics of Particles and Systems, by Jerry B. Marion & Stephen T. Thornton

Instructor:

Dr. John T. Whelan; 464 Monroe, 865-3641; jtwhelan@loyno.edu

Office Hours: MW 3:00-4:00pm, W 10:00-11:00am, or by appointment

Prerequisites:

PHYS A300 (Classical Mechanics I)

Scope of Course:

PHYS A301 will cover as much as the remainder of Marion and Thornton as possible. Topics will include Lagrangian and Hamiltonian formulations of mechanics, central-force motion, systems of particles, rotating reference frames and rigid body motion (Chapters 7-11) and, time permitting, wave motion and/or special relativity (Chapters 12-14).

Exams:

Two preliminary exams, to be given in class.

Final exam to be held Saturday, May 10, 11:30am-1:30pm.

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/A301/>

Course Listserv: physa301001@loyno.edu

Please subscribe ASAP by sending email to majordomo@loyno.edu with `subscribe physa301001` in the *body* of the message.

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, midterm exam grade, and final exam grade, each graded on 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.

	3.75- ∞	A
	3.25-3.75	B+
	2.75-3.25	B
Grading Scale:	2.25-2.75	C+
	1.75-2.25	C
	1.25-1.75	D+
	0.75-1.25	D
	$-\infty$ -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.