

PHYSICS 911

Classical Mechanics, August 27, 2007

Time: 9:30 am-10:20 am., MWF

Place: 118N Brace

Text: Classical Mechanics, Herbert Goldstein, (3rd edition) Addison-Wesley Publishing Company, 2002

Instructor: Sy-Hwang Liou, 364 Behlen, 472-2405, E-mail sliou@unl.edu

Office Hours: MWF 1:00pm-4:00pm or by appointment

Objective:

Lagrangian and Hamiltonian formulations of the laws of motion; variation principle; dynamics of rigid body; other advanced topics.

Structure and grading:

The course will consist of three one-hour lectures per week. There will be a few problem sets, due at assigned date. The lectures in PowerPoint format will be available over the Web. (<http://my.unl.edu/>)

There will be 3 exams (2 hour exams and a final exam) and a term paper in the course. Grading will be:

- 20% homework (10%), term paper (and a 15 min talk)(5%), and participation (5%)
- 40% (20% each) hour exams
- 40% final exam.

A list of possible topics will be discussed in the class. You are also welcome to stop-by my office to discuss other possible topics.

"Participation" is tough to quantify, but I'd like to try this to encourage you to ask questions, particularly about the reading assignments. If there's something in the course you find unclear, you're unlikely to be alone. Talking about these topics with each other and with me is a better way to learn the material than trying to do it in a vacuum.

Honor Code issues:

All work on exams and problem sets is subject to the Honor Code.

I encourage you to discuss the problem sets with each other. However, you may not copy solutions from other students, and the problem sets you submit must be entirely your own work and your own words. If you use a book, journal article, or website, you must cite the relevant material. If you collaborated strongly with other students, cite them as well - this is intellectual honesty.

Grade Scale:

(A⁺ 95%, A 92%, A- 88%, B⁺ 85%, B 82%, B- 78%, etc.)

Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.

Physics 911 Schedule
Fall 2007

Week	Date	Contents	Homework
1	8/27	Ch1	Ch1- 1, 2, 11, 12, 13, 14
	8/29		
	8/31		
2	9/3	Labor day	
	9/5		Ch1-, 15, 16, 17, 19, 21, 22, 23
	9/7		
3	9/10	Ch2	
	9/12		Ch 2- 1, 2, 3, 4, 10, 11
	9/14		
4	9/17		
	9/19		Ch2- 14, 15, 17, 20, 21
	9/21	Ch3	
5	9/24		
	9/26		Ch3- 1, 7, 9, 11, 13,
	9/28		
6	10/1		
	10/3		Ch3- 19, 23, 30, 31, 32
	10/5	Ch4	
7	10/8		
	10/10		Ch4- 2, 3, 5, 15
	10/12	review	
8	10/15	Exam I. (Ch 1, 2, 3) (AVS meeting)	
	10/17		Ch4- 20, 22, 23, 24, 25
	10/19		
9	10/22	Fall Break	
	10/24	Ch 8	
	10/26		Examples set
10	10/29		
	10/31		
	11/2		
11	11/5	Ch 6	
	11/7	Exam II. (Ch 4, 8) (MMM meeting)	
	11/9		
12	11/12		
	11/14		
	11/16	Ch 9	
13	11/19		
	11/21		
	11/23	Thanksgiving	
14	11/26		
	11/28	Ch5	
	11/30		
15	12/3		
	12/5	(SERDP Symposium)	
	12/7	review	
16	12/10	(last week)	
	12/12	Talks	
	12/14	Talks	
	12/18	Final Exam. 10:00am to 12:00 noon, Tuesday	

42 Lectures + 2 hours exams and a final