Syllabus for ISP209, Fall 2000

Lecturer: Prof. Carl Bromberg, reach me by E-mail: bromberg@pa.msu.edu,
Office: Rm. 251/255PA, Phone: 353-1809,
Office hrs.: Tues. & Thurs., 12:00 - 1:00, 3:00 - 4:00, or by appointment.

TA: Jeris Stueland, E-mail: stueland@pa.msu.edu, Phone: 53665 (Dorm) 53519 (Office)
Office hrs: Tues. 2:30 - 3:30, Wed. 4:00 - 6:00, Rm. 224PA anteroom, or by appointment

Lectures:

- Tues. and Thurs., at 10:20-11:40 am, room 118PA (see Course Schedule). Attendance is required. There are penalties for not attending lecture (see grading policies below).

Required Course Pack & Tools:

- The **required (& cheap) Course Pack**: "The Elastic Universe", Fall Semester 2000 (blue cover) will be available by noon, August 29, **only** at the **Student Book Store (SBS) (421 E. Grand River)**. If the SBS is out, order one (short wait). Buy a 3-ring binder for it!
- A calculator with scientific notation may be needed. Algebra is required and trigonometry may be used. Review scientific notation in Ch. 1, and algebra of units in Ch. 3. Metric units of length (m) and mass (kg), are used in most cases.

Course Topics:

- Course covers the topics shown in the **Course Schedule** (on the next page).
- Lecture topics are Course Pack chapter titles and **Reading Assignments**. All topics, presented in the Course Pack and lecture, may appear on an exam.

Homework (HW):

- There are 13 homework assignments as indicated in the **Course Schedule**.
- Standardized **Homework Answer Sheets** are included at the back of the Course Pack and are due at 10:20 am in 118PA on the dates shown. Homework submissions must be handwritten on **these standardized sheets (reproductions not accepted)**.

Exams, in-class quiz & Grades

- At the beginning of class, students must pick up **ONE (your own)** "bubble sheet", and return it at the end of class. Based on lecture, reading, or homework, at any time during class, quiz questions (multiple choice, 1 point each) may be asked.
- Three **30–minute exams** (30 points each) will be given in lecture on the dates indicated in the Course Schedule. Each exam covers the chapters indicated.
- There is a 2 hr. final exam (for a total of 150 points); see Course Schedule.
- Documented medical (or other) excuses for ONLY **one** exam, **one** quiz, and **one late** HW assignment submitted up to one week late will be graded; all HW must be submitted before the final exam. Final exam weights compensate for *excused* absence.
- HW and grades: HW submitted on time will be graded (unless approved, late HW will not be graded). Homework grades are weighted to contribute a maximum of 30 points to point total. Before final exam on Dec. 13, all homework assignments must be submitted, or an I-grade for the course may be given.
- Grades are "curved" with the mean point score (out of ~300) receiving a 3.0 grade.
- Check the **WEB** site, **http://www.pa.msu.edu/courses/isp209**, for syllabus, HW solutions, exam solutions, quiz solutions, scores, and grades.

ISP209 Schedule
Fall 2000

W	D	Date	L	Title	HW Due	Read Ch.
1	T	Aug. 29	1	Introduction to forces		1A-E
	TH	Aug. 31	2	"		
2	T	Sept. 5	3	"		
	TH	Sept. 7	4	Spring forces	1	2A-I
3	T	Sept. 12	5	"		
	TH	Sept. 14	6	Hooke's law	2	3A-H
4	T	Sept. 19	7	"		
	TH	Sept. 21	8	Springs generate forces and store energy	3	4A-D
5	T	Sept. 26	9	" **30-min. Exam (Ch.1-3)**		
	TH	Sept. 28	10	Springs and gravity	4	5A-E
6	T	Oct. 3	11	"		
	TH	Oct. 5	12	Gravity and the body	5	6A-E
7	T	Oct. 10	13	"		
	TH	Oct. 12	14	Static torque and friction	6	7A-D
8	T	Oct. 17	15	"		
	TH	Oct. 19	16	Work and energy	7	8A-G
9	T	Oct. 24	17	" **30-min. Exam (Ch.1-7)**		
	TH	Oct. 26	18	Transfers of energy between *PE* and *KE*	8	9 A-E
10	T	Oct. 31	19	"		
	TH	Nov. 2	20	Gravitational potential energy	9	10 A-F
11	T	Nov. 7	21	"		
	TH	Nov. 9	22	Momentum and energy	10	11 A-D
12	T	Nov. 14	23	"		
	TH	Nov. 16	24	Velocity and acceleration	11	12 A-F
13	T	Nov. 21	25	" **30-min. Exan (Ch.1-11)**		
	TH	Nov. 23		*Thanksgiving Holiday*		
	T	Nov. 28	26	"		
14	TH	Nov. 30	27	Accelerated environments	12	13 A-D
	T	Dec. 5	28	"		
15	TH	Dec. 7	29	"	13	
16	W	Dec. 13		**Final Exam** 10:00 - 12:00 PM , 118PA		
				(Lec. 1-29, Ch. 1-13, HW 1-13)		