

Fall 2007

DEPARTMENT OF PHYSICS

Physics 2A
Physics – Mechanics

Oct. 26, 2007

Web page: <http://physics.ucsd.edu/students/courses/fall2007/physics2ab/>

INSTRUCTOR: 2A Dr. Michael G. Anderson mganderson@physics.ucsd.edu
Office: 4102 Mayer Hall
Office Hours: T 3 - 4 p.m., Th 1:30 – 2:30 p.m.
Phone: 534-9621

COURSE COORDINATOR: Patti Hey, 118 Urey Hall Addition, 822-1468,
plhey@physics.ucsd.edu

2A TEACHING ASSISTANT: 2A Yanjin Kuang, ??? Hall,
yanjinkuang@physics.ucsd.edu

CLASS SCHEDULE:

Lectures: 2A MWF 2:00 – 2:50 p.m. WLH 2005
T 8:00 – 8:50 p.m. WLH 2005

Quizzes: Fri., Oct. 5th Fri., Oct. 12th Fri., Oct. 19th Fri., Nov. 2nd
Fri., Nov. 9th Mon., Nov. 19th Mon., Nov. 26th Mon., Dec. 3rd

Discussions: Wed. 7:00 p.m. – 7:50 p.m. 2622 York Hall

Problem Sessions: Thurs. 7:00 p.m. – 8:50 p.m. 119 Center Hall

Final Exam: 2A Wednesday, Dec. 12, 3:00 p.m. – 6:00 p.m., location TBA

Final Examination: The final examination will cover all of the material of the course. **Please check your final exam schedule and inform the instructor of any conflicts within the first two weeks of the quarter.**

TEXT: Wolfson and Pasachoff, Physics for Scientists and Engineers, 3rd Edition, Addison/Wesley

PREREQUISITES: Math 20A and concurrent enrollment in Math 20B. Trigonometry, vectors, and calculus will be used in lectures, problem sets and exams.

Help Is Available: Problem sessions will be held on Thursday evening. At these sessions, problems will be worked out and the weekly lectures gone over. Attendance is voluntary, but students are encouraged to use these meetings to help master course material and prepare for quizzes. Individual assistance is available during office hours. **The Physics Dept. tutorial center (location 2102 Mayer Hall) is also open Sunday-Thursday from 3-8 p.m.**

COURSE FORMAT: Physics 2 A-B-C-D is a lecture course covering mechanics, electricity and magnetism, waves and modern physics. Physics 2A is a calculus-based science-engineering general physics course covering vectors, motion in one and two dimensions, Newton's first and second laws, work and energy, conservation of energy, linear momentum, collisions, rotational kinematics, rotational dynamics, equilibrium of rigid bodies, oscillations, and gravitation.

Homework Assignments: Problem sets are assigned as selections from each text chapter. Solutions will be available on the course web site. The problems will be worked in detail during the problem session. The homework will not be graded, but exam problems may resemble homework that is assigned.

Quizzes: A weekly Problem Quiz will be given. Your lowest two quiz scores will be dropped. **There will be no make-up quizzes. You must purchase your own scantron form for quizzes (No. X101864-PAR). They are available at the Bookstore and the general store co-op for \$0.15 each. You will need a No. 2 pencil to fill in the scantron.** At the first quiz you will be assigned a quiz code number. This number is yours for the rest of the quarter. You have to put your proper quiz code number on every quiz and the final. When results of exams are posted on-line, they will be listed by quiz code number.

Clickers: You have the opportunity to earn up to 5% extra credit by utilizing the in-class SRS system (clickers).

Grading Policy:

Quizzes	60%	(Determined by your top six quiz scores)
Final Exam	40%	
Clickers	5%	(Extra Credit)

Add/Drop: Use WebReg to add/change/drop, drop from waitlists. See Sharmila Poddar (534-3290; <spoddar@physics.ucsd.edu>) in the Physics Department, Student Affairs Office, Urey Hall Addition, Room 115, if you have any problems with WebReg. If you need advice, see the TA or the instructor, **but they do not sign any cards.**

Add/Drop Deadlines:

Add	Friday, October 12th
Drop without 'W' on transcript	Friday, October 26th
Drop with 'W' on transcript	Friday, November 30th

Academic Dishonesty: Please read "UC Policy on Integrity of Scholarship" in the UCSD General Catalog.

PHYSICS 2A TENTATIVE COURSE SCHEDULE

Week	Date		Topics	Lecture
0	Sep. 28	F	Introduction	1A
1	Oct. 1	M	Units and Estimation	1B
	Oct. 2	T	Variables of Motion	2A
	Oct. 3	W	Kinematics	2B
	Oct. 5	F	Quiz 1 (Ch 1 & 2)	
2	Oct. 8	M	Vectors	3A
	Oct. 9	T	Projectile Motion	4A
	Oct. 10	W	Circular Motion	4B
	Oct. 12	F	Quiz 2 (Ch 3 & 4)	
3	Oct. 15	M	Forces	5A
	Oct. 16	T	Newton's Laws	5B
	Oct. 17	W	Applying Newton's Laws	6A
	Oct. 19	F	Quiz 3 (Ch 5)	
4	Oct. 22	M	Class Cancelled	
	Oct. 23	T	Class Cancelled	
	Oct. 24	W	Class Cancelled	
	Oct. 26	F	Class Cancelled	
5	Oct. 29	M	Multiple Objects	6B
	Oct. 30	T	Friction	6C
	Oct. 31	W	Work and Power	7A
	Nov. 2	F	Quiz 4 (Ch 6)	
6	Nov. 5	M	Energy	8A
	Nov. 6	T	Conservation of Energy	8B
	Nov. 7	W	Conservation of Momentum	10A
	Nov. 9	F	Quiz 5 (Ch 7 & 8)	
7	Nov. 12	M	UNIVERSITY HOLIDAY	
	Nov. 13	T	Collisions	11A
	Nov. 14	W	Two Dimensional Collisions	11B
	Nov. 16	F	Torque	12A
8	Nov. 19	M	Quiz 6 (Ch 10 & 11)	
	Nov. 20	T	Rotational Vectors	13A
	Nov. 21	W	Conservation of Angular Momentum	13B
	Nov. 23	F	UNIVERSITY HOLIDAY	
9	Nov. 26	M	Quiz 7 (Ch 12 & 13)	
	Nov. 27	T	Equilibrium	14A
	Nov. 28	W	Simple Harmonic Motion	15A
	Nov. 30	F	Simple Pendulum	15B
10	Dec. 3	M	Quiz 8 (Ch 14 & 15)	
	Dec. 4	T	Gravitation	9A
	Dec. 5	W	Gravitational Potential Energy	9B
	Dec. 7	F	Class Review	