

DEPARTMENT OF PHYSICS
Fall 2007 Physics 1A (a), (b), and (c) September 27, 2007
General Physics – Mechanics (Lecture and Laboratory)

Web page: <http://physics.ucsd.edu/students/courses/fall2007/physics1a/>

INSTRUCTOR: 1A(abc) Professor Jose Onuchic jonuchic@ucsd.edu
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Office Hours: TBA
Phone: 534-7067

COURSE COORDINATOR: Patti Hey, 118 Urey Hall Addition, 822-1468,
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1A TEACHING ASSISTANTS: 1A(a) Elizabeth Rivers,
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CLASS SCHEDULE:

<i>Lectures:</i>	1A(a)	MWF	8:00 – 8:50 AM	WLH 2001
	1A(b)	MWF	9:00 – 9:50 AM	WLH 2001
	1A(c)	MWF	10:00 – 10:50 AM	WLH 2001

Quizzes: Friday, Oct. 12th Friday, Oct. 26th Friday, Nov. 9^h Monday, Nov. 26th

Problem Sessions: TBA

Labs: Once a week for 10 weeks starting weekly the week of September 25. Note that the lab is a completely separate course. For questions regarding the labs, please contact the lab instructor Dr. Michael Anderson mganderson@physics.ucsd.edu.

Final Exam: 1A(a) Monday, December 10, 8:00 – 10:59 a.m., location TBA
1A(b) Wednesday, December 12, 8:00 – 10:59 a.m., location TBA
1A(c) Friday, December 14, 8:00 – 10:59 a.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: Serway and Faughn, College Physics, 7th Edition, Vol. 1, Thomson/Brooks/Cole

PREREQUISITES: Math 10A, concurrent in 10B or 20A. Trigonometry, vectors, and calculus will be used in lectures, problem sets and exams.

COURSE FORMAT: Physics 1 A-B-C is a lecture course covering mechanics, electricity and magnetism, waves and modern physics. This sequence is not suitable for students majoring in Physics, MAE, ECE or CSE. Other majors should check with their departments for the appropriate sequence. Physics 1A deals with Newtonian mechanics. The course schedule follows. A laboratory meeting each week will give hands-on experience of the physical concepts dealt with in the course. Concurrent enrollment in the 1A lab is required. Lab information can be found at <http://physics.ucsd.edu/students/courses/fall2007>. In addition, lab instructor Dr. Michael Anderson will be spending about 10 minutes discussing lab details during the first 1A course lecture on September 28.

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.**

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 Thursday problem session. The homework will not be graded, but problems in the quiz may resemble homework that is assigned.

Quizzes: A bi-weekly Problem Quiz will be given on alternate Fridays beginning the 2nd week (Oct. 12th, Oct. 26th, Nov. 9th) and on a Monday (Nov. 26th). Your lowest quiz score 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.

Grading Policy:

Quizzes	60%	(Determined by your top three quiz scores)
Final Exam	40%	

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 1A TENTATIVE COURSE SCHEDULE

Week	Date		Topics	Lecture
0	Sept. 28	F	Introduction, Units	1A
1	Oct. 1	M	Introduction, Units	1B
	Oct. 3	W	Displacement, Velocity	2A
	Oct. 5	F	1D Motion with Constant Acceleration	2B
2	Oct. 8	M	Free fall under gravity	2C
	Oct. 10	W	Vector, 2D Motion	3A
	Oct. 12	F	Quiz 1 (Ch 1 & 2)	
3	Oct. 15	M	Relative Velocity/ Projectile Motion	3B
	Oct. 17	W	Force, Newton's 1 st and 2 nd Laws	4A
	Oct. 19	F	Applications of Newton's 1 st and 2 nd Laws	4B
4	Oct. 22	M	Newton's 3 rd Law	4C
	Oct. 24	W	Applications of Newton's Laws and ILD	4D
	Oct. 26	F	Quiz 2 (Ch 3 & 4)	
5	Oct. 29	M	Work, Kinetic Energy; Work Energy Theorem	5A
	Oct. 31	W	Potential Energy, Conservative Forces	5B
	Nov. 3	F	Conservation of Energy	5C
6	Nov. 5	M	ILD on energy	5D
	Nov. 7	W	Momentum and impulse; conservation of mom.	6A
	Nov. 9	F	Quiz 3 (Ch 5)	
7	Nov. 12	M	UNIVERSITY HOLIDAY	
	Nov. 14	W	Collisions	6B
	Nov. 16	F	Rotational Motion	7A
8	Nov. 19	M	Gravity; Orbital Motion	7B
	Nov. 21	W	Torque and Equilibrium	8A
	Nov. 23	F	THANKSGIVING HOLIDAY	
9	Nov. 26	M	Quiz 4 (Ch 6, 7 & 8)	
	Nov. 28	W	Center of Gravity	8B
	Nov. 30	F	States of Matter; Archimedes Principle	9A
10	Dec. 3	M	Fluids in Motion; Bernoulli's Eqn.	9B
	Dec. 5	W	Viscous Fluids	9C
	Dec. 7	F	Class Review	