

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 1B deals with electricity and magnetism. 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 1B lab is required. Lab information can be found at: <http://physics.ucsd.edu/students/courses/winter2012/>.

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: Problem quizzes will be given beginning the 3rd week (Friday Jan. 27th, Monday Feb. 13th, Friday Feb. 24th, and Monday March. 12th). **There will be a make-up quiz for excused absences only during finals week. 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.

Grading Policy:

| | |
|------------|-----|
| Quizzes | 60% |
| 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:

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|--------------------------------|----------------------|
| Add | Friday, January 20th |
| Drop without 'W' on transcript | Friday, February 3rd |
| Drop with 'W' on transcript | Friday, March 9th |

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

PHYSICS 1B TENTATIVE COURSE SCHEDULE

| Week | Date | | Topics | Lecture |
|------|---------|---|--------------------------------|---------|
| 1 | Jan. 9 | M | Introduction | Intro |
| | Jan. 11 | W | Insulators, Conductors | 19A |
| | Jan. 13 | F | Coulomb's law | 19B |
| 2 | Jan. 16 | M | MLK Day – No Class | None |
| | Jan. 18 | W | Electric Fields | 19C |
| | Jan. 20 | F | Gauss law | 19D |
| 3 | Jan. 23 | M | Electric PE and Potential | 20A |
| | Jan. 25 | W | Equipotentials & Part. Motion | 20B |
| | Jan. 27 | F | Quiz 1 (Ch 19) | |
| 4 | Jan. 30 | M | Capacitance & Capacitors | 20C |
| | Feb. 1 | W | Equivalent Capacitors | 20D |
| | Feb. 3 | F | Current & Resistance | 21A |
| 5 | Feb. 6 | M | Ohm's law | 21B |
| | Feb. 8 | W | Kirchhoff's laws | 21C |
| | Feb. 10 | F | Complicated Circuits | 21D |
| 6 | Feb. 13 | M | Quiz 2 (Ch 20 & 21) | |
| | Feb. 15 | W | RC Circuits | 21E |
| | Feb. 17 | F | Magnetic Fields | 22A |
| 7 | Feb. 20 | M | President's Day – No Class | None |
| | Feb. 22 | W | Charged Part. In B field | 22B |
| | Feb. 24 | F | Quiz 3 (Ch 21 & 22) | |
| 8 | Feb. 27 | M | Ampere's law | 22C |
| | Feb. 29 | W | Solenoids | 22D |
| | Mar. 2 | F | Faraday's law | 23A |
| 9 | Mar. 5 | M | Motional EMF & Lenz's law | 23B |
| | Mar. 7 | W | Inductance | 23C |
| | Mar. 9 | F | Inductors and RL circuits | 23D |
| 10 | Mar. 12 | M | Quiz 4 (Ch 22 & 23) | |
| | Mar. 14 | W | Maxwell's Equation | 24 |
| | Mar. 16 | F | Class Review | |