

CHAMINADE UNIVERSITY
PHY-252L: UNIVERSITY PHYSICS I LABORATORY
COURSE SYLLABUS – SPRING 2014

Instructor: Matthew Cochran
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Office: Henry Hall 7
Office Phone: 739-8361
Course Time: Tuesday, Wednesday, or Friday from 2:30 to 4:50
Course Room: Henry Hall L10
Prerequisites: Concurrent enrollment in PHY-252 is assumed.
Required Text: None. Handouts will be provided.
Other Materials: Scientific Calculator and Lab Coat

COURSE DESCRIPTION:

This is an introduction to laboratory techniques and experiments that illustrate and apply basic physics principles presented in lecture. Students will have the opportunity to apply the scientific method in collecting and analyzing data.

COURSE OBJECTIVES:

Upon successful completion of the course, students will be able to:

- Make careful measurements of physical quantities.
- Estimate the uncertainties and demonstrate a knowledge of statistical analysis.
- Present results graphically and make calculations using a computer when appropriate.

EVALUATIONS AND GRADING SCALE:

Worksheet Labs Reports	80%
Quizzes.	20%
90% – 100%	A
80% – 90%	B
70% – 80%	C
60% – 70%	D
0% – 60%	F

Incomplete grades (I) will be given in accordance with college regulations as outlined in the college catalog. Withdrawals (W) from the class are the responsibility of the student and deadlines are set by the college.

LAB REPORTS:

There are fourteen labs during the semester. They will be in the form of worksheets and should be completed in class and turned-in before leaving. Although students will work in groups on experiments, lab assignments are individual preparations. Each student is responsible for their own interpretation of results.

ATTENDANCE:

Each student is expected to attend every lab. Arrive on time. Makeup labs will only be given under extenuating circumstances beyond the student's control. If a student knows in advance of an absence, inform the instructor as soon as possible.

SAFETY:

No food or drinks are allowed in lab. In addition, student must wear lab coats and closed-toed shoes at all times. Slippers are not allowed.

MUSIC DEVICES AND CELLPHONES:

Unless specifically permitted by your instructor, use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, as it is discourteous and may lead to suspicion of academic misconduct. Students unable to comply will be asked to leave class.

ADA ACCOMMODATIONS:

Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from CUH Counseling Center (Dr. June Yasuhara, 735-4845) by the end of the third week of classes. Failure to provide written documentation will prevent your instructor from making necessary accommodations. Please refer any questions to the Dean of Students and review procedures at:

www.chaminade.edu/student_life/sss/counseling_services.php

TENTATIVE SCHEDULE:

Week	Lab
1	Vector Addition
2	Charge
3	Electric Potential
4	Circuits I
5	Circuits II
6	Ohm's Law
7	RC Circuits
8	Magnets and Magnetic Interactions
9	Simple Electric Motor
10	Inductors
11	Standing Waves
12	The Speed of Sound
13	Geometric Optics
14	Interference and Diffraction
15	Make Up