

CHAMINADE UNIVERSITY  
PHY-251L: UNIVERSITY PHYSICS I LABORATORY  
COURSE SYLLABUS – FALL 2014

**Instructor:** Eric Dodson  
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**Office:** Wesselkamper 110  
**Office Phone:** 739-8363  
**Office Hours:** M, Tu, Th: 3:00-4:00PM ; Fr 11:30 AM-12:30 PM  
**Course Time:** Wed. 2:30-5:20 PM  
**Course Room:** Henry Hall Lab 10  
**Prerequisites:** Concurrent enrollment in PHY-251 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 Lab Reports (15) 70%  
Quizzes 30%

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 fifteen labs during the semester. They will be in the form of worksheets and should be completed in class and turned in at the beginning of the next class

Although students will work in groups on experiments, lab assignments are individual preparations. Each student is responsible for their own interpretation of results.

**QUIZZES:** We will have a short quiz at the beginning of each lab (5-10 minutes). The quiz will be based on your understanding of the previous weeks lab. No make-up quizzes will be given. At the end of the semester I will drop your lowest quiz score.

**ATTENDANCE:**

Each students 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.

**TENTATIVE SCHEDULE:**

Week	Lab
1	Units and Significant Figures
2	Graphs of 1-D Motion
3	Motion of a dropped ball
4	Projectile Motion I
5	Projectile Motion II
6	Friction
7	Cart Dynamics
8	Collisions
9	Impulse and Momentum
10	Torque
11	Hooke's Law
12	Simple Harmonic Motion
13	Buoyancy
14	Statics
15	Specific Heat