



Chaminade University

OF HONOLULU

PHY-251L: UNIVERSITY PHYSICS I LAB COURSE SYLLABUS – FALL 2019

Instructor: Matthew Cochran
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Office: Henry Hall Office 7
Office Phone: 739-8361
Course Room: Henry Hall L10
Prerequisites: Concurrent enrollment in PHY-251 is assumed.
Required Text: None. Handouts will be provided.
Other Materials: Scientific calculator, 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.

EVALUATIONS AND GRADING SCALE:

Worksheet Labs Reports	70%
Quizzes	20%
Makahiki Games.	10%
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:

Lab reports will be in the form of worksheets. Labs should be completed in class and submitted 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:

A short quiz will be given at the beginning of each lab. The quiz will test your understanding of the most recent lab. You may use your lab report while taking the quiz. No make-up quizzes will be given.

ATTENDANCE:

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

SAFETY:

No food or drinks are allowed in lab. Student must wear closed-toed shoes at all times. Slippers are not allowed. Lab coats must be worn at all times.

WEEKLY SCHEDULE:

Week	Lab
1	Units and Significant Figures
2	Representations of Motion
3	Motion of a Ball
4	Projectile Motion I
5	Projectile Motion II
6	Statics
7	Friction
8	Cart Dynamics
9	Energy and Power
10	Impulse and Momentum
11	Makahiki Games
12	Rotational Statics
13	Buoyancy
14	Thanksgiving Recess – No Class
15	Ideal Gas Law

COURSE OBJECTIVES:

Upon successful completion of the course, students will demonstrate:

1. The ability to measure physical quantities such as distance, time, and force using basic scientific instruments;
2. The ability to estimate uncertainties and a knowledge of statistical analysis;
3. The ability to present results graphically;
4. The ability to measure physical quantities using a computer when appropriate;
5. The ability to analyze results using a computer when appropriate;

TITLE IX COMPLIANCE:

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. If you or someone you know has been harassed or assaulted, you can find the appropriate resources by visiting Campus Ministry, the Dean of Students Office, the Counseling Center, or the Office for Compliance and Personnel Services.

DISABILITY ACCESS:

If you need individual accommodations to meet course outcomes because of a documented disability, please speak with me to discuss your needs as soon as possible so that we can ensure your full participation in class and fair assessment of your work. 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 the Counseling Center by the end of week three of the class, in order for instructors to plan accordingly. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at (808) 735-4845 for further information (counselingcenter@chaminade.edu).

MUSIC DEVICES AND MOBILE PHONES:

Unless specifically permitted by your instructor, use of music devices and mobile 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.