



Spring 2017 Syllabus
Course Code:PHY-130L-01-1

I. Instructor Information

Name: Eric Dodson, M.S.

Office: 110 Wesselkamper

Phone: 739-8363

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Office Hours: Monday-Friday 12:30-1:20 and by appointment

II. Course Information

Meets: Friday 2:30-5:20

Location: Henry Hall Lab 10

III. Required Text

None, Lab Worksheets will be provided each week

IV. Course Title: Physics of Human Motion Laboratory

V. Course Description: One three-hour laboratory period per week to accompany ENV 202. Students investigate matter and energy in our environment and the transformations that they undergo in order to learn firsthand the application of the relevant physical principles to environmental issues and sustainable solutions. Activities are conducted in the laboratory and in the field. Course must be taken concurrently with ENV 202. Cross-listed with PHY 111L. (Course Catalog Description)

VI. Learning Outcomes: At the conclusion of the course the student will be able to:

- Make proper use of experimental apparatus to include : meter-sticks, scales, electronic sensors and computer based data collection software
- Apply the pertinent laws of physics to a hands-on physical experiment and
- Perform the appropriate mathematical analysis on experimentally collected data
- Have an understanding of Earth Systems Science
- Be able to demonstrate environmental field skills
- Be able to conduct research
- Understand the role science plays in environmental problem-solving
- Be able to write a scientific research report
- Be able to put science into common written or spoken language

VII. Course Elements

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. Students will investigate fundamental principles of physics and their application to environmental science

TENTATIVE SCHEDULE: (Since this is my first time teaching this course, this schedule may be modified significantly as the semester progresses)

Date	Experiment
01/20/17	Introduction, Laboratory Safety
01/27/17	Units (mks) and Measurement
02/03/17:	Graphical Analysis of 1-D Motion
02/10/17:	Measuring the Acceleration due to Gravity
02/17/17:	Exploring Newton's Laws with a Force Platform
02/24/17:	Dropped Ball: Conversion of Gravitational Potential Energy to Kinetic Energy
03/03/17:	Elasticity of a Bouncing Ball
03/10/17:	Human Energy and Power
03/17/17:	Build an Electric Motor
03/24/17:	Spring Break
03/31/17:	Mechanical to Electrical Energy Conversion Using a Hand-held Generator

04/07/17:	Thermal Conductivity and Cooling: Which Coffee Mug is Best
04/14/17:	Holiday
04/21/17:	Measuring the Intensity and Efficiency of Light Bulbs
04/28/17:	Sound and Frequency
05/05/17:	Lab Final

VIII. Grading Scale

A= 90% and up

B= 80-89%

C= 70-79%

D= 60-69%

F= less than 60%

IX. Assignments and Grading

The overall class grade will be based on the following:

Lab Reports 40%

Participation 10%

Quizzes 25%

Final Exam 25%

Lab Reports: Each week you will be provided with a worksheet that contains the instructions for that weeks lab along with questions, tables, graphs etc. to be filled out. The worksheets will be graded for accuracy, completeness and legibility. The worksheets will be graded on a 5 point scale

Quizzes: At the beginning of each lab we will have a five to ten minute quiz based on your understanding of the previous week's lab. Since the quizzes will be given at the beginning of class it is imperative that you show up on time.

X. Additional Departmental and University Policies

1. Electronic Devices

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cellphones and music devices in laboratories is a safety issue. In addition, use of cellphones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who cannot comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. You will be asked to leave class and marked absent if you do not comply. This will negatively affect your grade. Please refer any questions to the Dean of Natural Sciences and Mathematics.

2. ADAA Statement

2.1 Pursuant to several federal and state laws, including the Americans with Disabilities Act of 1990, as amended by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973, all qualified students with disabilities are protected from discrimination on basis of disability and are eligible for reasonable accommodations or modifications in the academic environment to enable them to enjoy equal access to academic programs, services, or activities. 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.

3. Attendance & Tardiness

3.1 Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension or by leaving a message with the instructor's division office (Natural Science and Math 1 (808) 440-4204). It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially **withdrawing** may receive a failing grade.

3.2 Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being **withdrawn** from the course by the instructor, although the instructor is not required to **withdraw** students in that scenario. Repeated absences put students at risk of failing grades.

3.3. Tardiness: Quizzes will begin promptly at the beginning of class. Show up on time and you will get the full amount of time to complete your quiz

4. Policy on Make-Up Tests

Make-ups will only be allowed with a valid excuse.

5. Policy on Communication

5.1 The University provides a Chaminade email address for all students. Official Chaminade communications will be sent to the students' Chaminade email address and instructors will use only this email to communicate with students. It is the responsibility of the student to check their email frequently. Report email-related problems to the Helpdesk at 808-735-4855 or helpdesk@chaminade.edu.

6. Laboratory Safety Information

The following guidelines are established to provide instructions in maintaining safety for students, staff, and faculty while using any of the science laboratories at Chaminade University. The Division of Natural Sciences and Mathematics (NSM), along with the University Environmental Safety Office are responsible for enforcing the regulations set forth in the current Student Handbook. Queries should be addressed to: Dean of Natural Sciences and Mathematics (808) 440-4204; Environmental Safety Officer (808) 739-4811

7. Title IX Declaration

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. Should you want to speak to a confidential source you may contact the following:

- Chaminade Counseling Center| 808 735-4845.
- Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

8. Academic Honesty

Students are expected to have read and to abide by the "Student Rules of Conduct" which are available in your copy of Chaminade University's Student Handbook. Cheating in the form of plagiarism, collusion, deception and will not be tolerated and will negatively affect your grade.
