

PHYS 101 Laboratory Online- Syllabus

Course Objectives

The objective of this course is for the student to learn:

- How to perform a careful experiment, estimate the uncertainties, and present the results graphically.
- How to use the graph as an analysis tool. In particular, methods for finding the straight line and the uncertainties best representing the data are emphasized.
- How to prepare technical material for oral presentation to a group of peers.
- The connections among the concepts taught in the lecture portion of the course, experiences from the 'real world', and the laboratory exercises.
- The specific physical principles involved for each of the labs performed.

Eligibility

To be eligible for enrollment in PHYS 101L a student must satisfy one of the following three conditions:

1. Have completed the corresponding lecture course PHYS 101 with a grade of C or better.
2. Be concurrently enrolled in the corresponding lecture course PHYS 101.
3. Have a written waiver from the Undergraduate Director for Physics and Astronomy.

Organization of the Course

Course Overview

For 101L Online, the semester involves completing laboratory projects and giving one oral presentation. Each week, one project video will be watched, students will meet with their lab instructor online using Blackboard, and an assignment will be completed. These completed assignments will be graded by the course TA. Each student will give one oral presentation during the semester. The oral presentations will consist of covering one of the experiments performed to date and is graded by the course TA.

Attendance and Grading

Grading

8 Experimental Data Sheets (each out of 40, up to 320 points).

1 oral presentation (50 points).

Class participation (up to 30 points).

Each absence will cost a penalty of -10 points plus loss of credit for missed work.

Total Points = 400

360-400 A

340-359 B+

320-339 B

300-319 C+

280-299 C

240-279 D

0-239 F

No grades will be dropped

Attendance

Attendance in the course is required. Consistent with the University "15% rule", the attendance policy for this course is as follows:

Tardiness

Tardy arrival at class by more than 20 minutes will constitute an unexcused absence.

1. Tardy arrival by 20+ minutes will be automatically excused on the first occasion.
2. Tardy arrival by 20+ minutes on the second and subsequent occasions will constitute an unexcused absence.

Unexcused Absences

One unexcused absence from any class meeting will result in -10 points plus loss of credit for the work missed.

1. Two unexcused absences can result in a failing grade, F, for the course.

Excused Absences

1. One or two excused absences will have no direct effect on your grade. You are still responsible for turning in your assignments on time and participating in one oral

presentation. If you miss the oral presentation session on the day you are to present, see your instructor to discuss options for making up this deficiency.

2. More than two excused absences can result in an incomplete (I) for the course.

An absence will be considered excused only if you present to your instructor a copy of a valid excuse prior to the class meeting during which you will be absent. (Notification of excused absence after an absence will be accepted only in cases of demonstrable emergency; for example, you were rushed to the hospital and unable to notify the lab instructor.) **A valid excuse is a signed and dated letter from a person in authority (your doctor, minister, judge, policeman, dean, etc.) on official stationery stating why you are unable to attend class on the date in question. A note from a parent or friend is not acceptable.**

Excuses should be presented to the laboratory instructor prior to the class meeting during which you will be absent. **Excuses that are presented after an absence will be adjudicated by the course supervisor.**

Instructor Attendance:

In the event that the lab instructor is not present in the Blackboard meeting room 15 minutes after the beginning time of the lab period, students are expected to have a representative send an email to the lab manager.

Physics 101 Online Course Materials

The online materials are available on the physics department webpage.

Collaboration

Students are encouraged to work together; however, each student should submit their own Experimental Data Sheets for each lab.

General Requirements

Always have the lecture course textbook available to you during your online lab. If you don't have one, you should borrow or buy one for use in this course.

Students are presumed to have an electronic mail account, to have their address published in USC's online directory and to check their e-mail regularly. The laboratory instructors, support staff, and faculty in charge of the laboratory can all be reached *via* an e-mail link at the department web site.

The laboratory instructors, support staff, and faculty in charge of the laboratory may choose to send important information by e-mail. Students are responsible for supplying a functioning e-mail address and checking for messages on a regular basis.