PHYS 272L Syllabus

Course

PHYS 272L: General Physics II Lab
Section 1 (Group I)
Fall 2018

Instructors

Edward Vause (TA)
Email: vause@hawaii.edu
Office hours: Fridays 10:30 a.m. to 12:30 p.m. in WAT 421.
Other TAs are available at other times (see schedule at WAT 421).

Dr. Philip von Doetinchem (supervising professor of PHYS 151L, 152L, 170L, 272L)
Email: philipvd@hawaii.edu
Office: WAT 430
Office telephone: (808) 956-3719
Website for labs: http://go.hawaii.edu/fQi

Schedule

Mondays, 1:30 p.m. to 4:20 p.m.

See the lab schedule at the end of this syllabus for the weekly topic and location (it's either PSB 111 or 112). Do *not* refer to page xi of the lab manual, as the actual order of the labs is different than what's there.

We are part of Group I.

Required Materials

The required lab manual is:

Harris, Frederick H. *General Physics Laboratory II: Electricity & Magnetism, Optics: Physics 152L and 272L*, 2nd ed.
(https://he.kendallhunt.com/product/general-physics-laboratory-ii-electricity-and-magnetism-optics-physics-152l-and-272l-ebook)

In addition to the lab manual, bring these materials to every lab meeting:

- Two Composition notebooks (one for the previous lab's report, one for the current lab)
- Pen (all writing in the notebooks must be done in pen)
- Scientific calculator (graphing calculator with large screen highly recommended)
- Wear closed shoes

Students should have access to scissors, tape, and a ruler outside of class.

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Grading

- Lab reports (60% of course grade)
  - Each student must perform and write a lab report for every lab.
  - Each student must write their own lab reports.
  - Each lab report or other assignment is due one week (seven days) after the lab is performed, at the beginning of class, unless otherwise specified.
  - Late lab reports incur a 15% late penalty and can be submitted up to two weeks beyond the due date. After this point, the student incurs **one missed lab** (see Missed Labs section below).
- Quizzes (40% of course grade)
  - A 10-15 minute quiz will be given at the beginning of each lab.
  - Students who arrive late and miss the quiz cannot take it later during the lab.
  - The quiz will cover material from the previous week's lab and the current lab.

The final letter grades are determined based on the class's distribution of scores.

Missed Labs

- Students must email the TA before or immediately after a missed lab. The student is responsible for arranging a make-up lab. The TA is not responsible for contacting the student after a missed lab to schedule a make-up lab.
- If the TA was not contacted on the same day of a missed lab, and the student cannot produce a doctor's note or other legitimate excuse, the lab cannot be made up. In this case, the student receives 0% for the lab report and quiz.
- **Two make-up labs are allowed**. Any further missed labs cannot be made up (see next bullet point). Special circumstances requiring exception to this rule should be brought to the TA's attention as soon as possible, and will be decided on a case-by-case basis with Dr. von Doetinchem.
- **Only one lab can be missed without making it up to be able to pass the class.** This will result in 0% for the lab report and quiz. A second lab that is missed and not made up will result in failing the course.

Procedure for Making Up a Lab

If you know that you must miss an upcoming lab, follow this procedure:

1. Look at the E&M Labs Schedule on Laulima, and find another PHYS 152L or 272L section that you can attend. There are Group I and II sections, so use the lab schedule at the end of this syllabus to determine which lab the sections will be performing.
2. Email me to tell me which section you are going to attend. If you are unable to attend any other 152L or 272L section, tell me some time periods during which you are free to make up the lab. In general, however, you cannot expect the TA to perform a lab with you exclusively.
3. When you attend the other section, take the quiz if one is given, and give your lab report of the previous lab to the TA. Before leaving, ask the TA to sign your lab notes.

Other Expectations

- It is within the discretion of the TA to decide whether a student who arrives late to class will be allowed to conduct the lab or must miss the lab. Generally, being late by more than 30 minutes results in a missed lab that should be made up at some other time (see Missed Labs section above).
- Students should expect to have to stay for the entire duration of the class period each week. If you finish the lab early, you should work on the calculations for the lab report.
- Each student should show the TA their data before leaving the class.
- Students will work in randomly assigned pairs that change about every two weeks.

UH Email and Laulima

Students are responsible for checking their UH email regularly for announcements regarding this course. Many class materials will be uploaded to Laulima.

Cheating

No copying or cheating is allowed on lab reports or during quizzes. A student caught cheating will receive zero points for the lab report or quiz in question, and the incident will be reported to Dr. von Doetinchem for further discussion. The incident could cause the student to fail the course.

Student Learning Outcomes

1. Better understand physics concepts by seeing their applications in experiments.
2. Understand the importance of observation and experiment in scientific inquiry.
3. Obtain basic laboratory experience in the methods and techniques used by scientists.
4. Report the results of experiments in a scientific fashion.

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Lab Schedule

GROUP I (our group)

Date:	Experiment:	Room #
8/27	LED	
9/3	Labor Day (lab skipped)	111
9/10	Electric Deflection	112
9/17	Oscilloscope	111
9/24	DC Circuits	112
10/1	Capacitors	111
10/8	Magnetic Field Mapping	111
10/15	Magnetic Deflection	112
10/22	Induction	111
10/29	Driven Oscillation	112
11/5	Natural Oscillation	111
11/12	Veterans Day	111
11/19	Geometric Optics	111
11/26	Refraction of Light	112

GROUP II

Experiment:	Room #
LED	
Electric Deflection	112
Electric Field Mapping	111
DC Circuits	112
Oscilloscope	111
Capacitors	112
Magnetic Deflection	112
Magnetic Field Mapping	111
Induction	112
Natural Oscillation	111
Driven Oscillation	112
Geometric Optics	112
Refraction of Light	111