

Physics 221 Section 221015 Recitation and Laboratory Syllabus

Time

Day: MONDAY

Recitation: 12:20-1:10; Laboratory: 1:25-3:20

Instructor

MOHAMMADREZA REZAEI (you can call me REZA), mrezaei@utk.edu

Office Hours: please send me an email so we can set a time, I am available every day.

Where we can meet: Physics Tutorial Center, Nielsen 201)

Course Description

This is the supplemental laboratory of the Physics 221 course. The purpose of this laboratory is to expose you, in a hands-on laboratory setting, to the physics topics covered in lecture. You will be required to perform experiments covering a wide range of physics concepts in kinematics, dynamics, thermal physics, and optics.

Course Materials

The laboratory manual for Physics 221 is Contemporary Introductory Physics Experiments by James E. Parks, Hayden-McNeil Publishing, ISBN 978-0-7380-3083-8. This manual is available at the UT Book and Supply Store. All of you should have a copy of the laboratory manual before the first lab class. Please make sure to bring this book to every laboratory session. In addition to laboratory manual, you should also bring a scientific calculator to every laboratory session.

Recitation

Before every laboratory there will be 50 minutes long recitation period. You are expected to come to every recitation. Note that on the dates when there is no laboratory experiment scheduled there will be also no recitation. Please come to class having read the new lab! Typically you will be given a quiz during recitation session over the new laboratory material. The quiz may also include a few questions covering basic lecture concepts. There will be no makeup quizzes! Following the quiz, specific problems or topics related to the week's lecture will be covered.

Laboratory

You are expected to read the experiment before coming to the lab session. Generally you will work in pairs to perform the experiments. The partners should collaborate and have approximately equal contribution when performing the experiments.

Lab Reports

Every student must write their **OWN lab report**. At the start of every laboratory session, you will be required to hand in a lab report over the previous week's experiment. No late lab reports will be accepted.

The lab report must have following sections: Heading, Introduction, Procedure, Data, Analysis and Conclusions. These sections typically include the following:

- **Heading:** Title, your name, your section number, and your partner's name, lab instructor's name, the date you performed the experiment and the date when you handed in the report.
- **Introduction:** a clear statement about the scientific objective of the lab and a little on the theory behind it including relevant equations, variables and units
- **Procedure:** List materials and apparatus used in the experiment. Don't quote the manual word for word, summarize what you did. Keep it short!
- **Data:** Present all relevant data, analysis and graphs. You should label all the axes and make sure all the axes come with units.
- **Analysis:** Discuss about meaning of your results. Do your data support the theory associated with the experiment? Discuss possible sources of error.
- **Conclusion:** Was your prediction about outcomes correct? What physics concepts did you learn in the lab? Argue the significance of your results.

The graded lab reports will be returned to you the next lab (this means typically one week later). The grades of the lab report will be also posted on Blackboard. You should look for these grades under your specific section rather than under the merged section of your class. If there is a concern about a grade you must contact TA within one week of receiving your graded lab report.

Attendance

Lab attendance is mandatory. It is expected that you are on time for every recitation and lab session. Do not be late. If you must miss lab due to extenuating circumstances (ie. serious injury, illness, or a death in the family) it is your responsibility to contact TA as soon as possible. TA may allow you to make up the laboratory during the same week.

Typical Grading Procedure

Lab Reports 75%

Participation Credit 5%

Quizzes 20%

Lab reports will account 95% of grade when no quiz is given. You earn participation credit if are you present in time and actively contribute to data taking in the lab.

Classroom Policies

Please respect your fellow students and please respect your TA. Do not come to class late. Do not talk when TA is talking. Turn off your cell phones and music players and pay attention!

All students are expected to abide by the University Honor Statement. Any kind of cheating will not be tolerated. In this course, cheating might include making up data, copying off your neighbor on quizzes, or handing in a lab report that is partially or fully identical to another student's. If TA catches you cheating, s/he will assign you a zero for whatever it is you are cheating on. A second offense will result in a grade of zero for the laboratory portion of the course and a report to the Office of Student Judicial Affairs.

Course Outline

The schedule of experiments can be found online at

<http://www.phys.utk.edu/labs/Fall%202013%20P221%20Lab%20Schedule.pdf>

If this schedule changes, TA will notify you by e-mail.

Announcements

For announcements check your Section pages on Blackboard regularly.

If you need course adaptations or accommodations because of a documented disability, please contact the Office of Disability Services (ODS). This will ensure that you are properly registered for the services provided by ODS.

Disability Services

2227 Dunford Hall

Knoxville, TN 37996-4020

Phone: (865) 974-6087 (v/tty)

Fax: (865) 974-9552

Email: ods@utk.edu

Website: <http://ods.utk.edu/>