

# Physics 261 - Summer II 2015

## General Physics: Vibrations, Waves, Heat, Electricity and Magnetism (Laboratory)

- 1. Official Course Description:** PHYS261 General Physics: Vibrations, Waves, Heat, Electricity and Magnetism (Laboratory); (1 credit) Grade Method: REG/P-F/AUD. Corequisite: Concurrently enrolled in PHYS260. Lab includes experiments on mechanics, vibrations, waves, heat, electricity and magnetism. PHYS260 and PHYS261 (lab) must be taken in the same semester and the grade for the courses will be combined into a single grade for both. To pass, students must complete passing work in both PHYS260 and PHYS261.
- 2. Co-requisite:** PHYS260 is a mandatory co-requisite for PHYS 261. To pass PHYS261, students must complete passing work in both PHYS260 and PHYS261.
- 3. Instructor:** David Buehrle, Dept. of Physics, Room 1330 Toll Physics Building, [dbuehrle@umd.edu](mailto:dbuehrle@umd.edu) **Office Hours:** Wednesday 1PM to 2PM or by e-mail appointment
- 4. Lecture and Lab:** To pass PHYS261, you must complete **ALL** the labs in PHYS261 and you must enroll in and pass the lecture part of the course (PHYS260) in the same semester. If you are not taking PHYS260, but only taking PHYS261 you should contact me ASAP. Otherwise you won't get any credit at the end.
- 5. Required Textbook:** Physics 261 Lab Manual, Fall 2014 Edition. (NOT Fall 2010 Edition !) Phys 261 Lab Manual (Fall 2014 Edition) eBook ISBN is 9781119038535. You can purchase the eBook on the Vital Source website (<http://store.vitalsource.com>) to purchase the eBook. You can search for the book by typing the ISBN into the Search box in the upper right corner of the Welcome page. You will need to download the free Vital Source Bookshelf reader to use their eBook. If you would like help downloading or using their eBook, go to the Vital Source Customer Support page:<http://support.vitalsource.com/>. The print version of the new Phys 261 Lab Manual (Fall 2014 Edition) will be available in bookstore in Stamp Student Union.
- 6. Course Outline:** You will attend a lab every Tuesday and Thursday for the session. You should read course syllabus very carefully, and also look around ELMS Canvas to make yourselves be familiar with the system. If you need help, contact your TA and ask for help. Before you ask questions, be sure to check this syllabus first ! There are nine main experiments. Each lab you must turn in answers to the Prelab questions before actual lab starts. You can do the prelab by answering the quiz in ELMS website. Prelab questions (quiz) will be posted in ELMS a few days before each lab starts. The answers are due at the start of the lab (No paper submission, submit via ELMS). You don't have to answer or submit prelabs in Lab manual. Answering and submitting the quiz in ELMS is THE PRELAB. Each lab session lasts two hours and fifty minutes, and begins with about 10 ~ 15 minute discussion of the lab by the TA. At the end of your lab session, you need to turn in your own lab report. It doesn't matter if your lab partner turned in a report, you need to turn in your own report. It does not matter if your report is the same as your lab partner's. Of course you have the same data as your lab partner. But, if you want to get a grade for the lab you must turn in your report to your own Physics 261 area in ELMS Canvas (go to <http://www.elms.umd.edu>) before you leave the lab. The report itself consists of an Excel spreadsheet which will contain all data taken, as well as analysis and discussion. The report is expected to be a succinct summary of data, analysis and conclusions without redundant or superfluous discussion. The spreadsheet itself must be turned in at the end of the lab session (upload it to the Physics 261 site on ELMS). Each of you will need to log in to ELMS at <http://www.elms.umd.edu>, select the Physics 261 link, then click on "Lab report" and upload your spreadsheet report. Don't forget to hit the submit button. Note also that you can only submit one file, so make sure it is the right and final file that you submit. If you make a mistake and send the wrong thing, e-mail the instructor and your TA to let them know what happened along with a copy of your spreadsheet.

**The Final Questions in Each Lab:** At the end of each lab there is typically a set of “Final Questions”. These are to be completed and turned in with your lab report spreadsheet at the end of each lab session.

**Missing a Lab:** In order to pass the class all labs and culminating lab must be completed. Students are permitted to perform labs in make-up sessions only if they have a legitimate reason for failing to attend a lab session. In the event that you miss a lab session, e-mail the instructor or TA as soon as possible, who may be able to make arrangements for you to attend at a different time during the same week.

**\*Important Notes:**

(1) **YOU MUST COMPLETE ALL THE LABS IN PHYSICS 261 IN ORDER TO PASS BOTH PHYSICS 260 AND 261.**

There are no exceptions. Students who do not complete all of the experiments in physics 261 will automatically get an F in both PHYS260 and PHYS261. Don't believe anyone who tells you differently.

(2) You must turn in your own lab report to ELMS at the end of your lab session. You can't turn it in later and you no one else can turn it in for you.

(3) No lab, prelab, or exam scores will be dropped.

**Academic honesty:** I expect you to get together in small groups and discuss the labs. However, do not use these discussions as an excuse to copy someone else's data, prelab answers or solutions to the homework or let someone else copy your solution. That is cheating. The right way to proceed is first to read through the lab, do the prelab, and then take a look at the final questions. With this preparation you can discuss with others and see if you have missed something. All work you submit must be your own and should reflect your own understanding. Academic dishonesty, including copying homework, Googling for solutions on the web, or cheating on an exam, is a very serious offense which may result in suspension or expulsion from the University. Don't do it. Details on the policy can be found at [www.testudo.umd.edu/soc/dishonesty.html](http://www.testudo.umd.edu/soc/dishonesty.html).

### **Grading Policy:**

- prelab questions (due before your lab session starts) 30%
- Lab report 70%

**Note:** Your score from the PHYS261 Lab will be combined with your score from the PHYS260 Lecture part of the course to produce one, overall, common score for both PHYS260 and PHYS261. The score from PHYS261 will be weighted 20% and the score from PHYS260 will be weighted 80% to produce this final score. Note that scores you can see on ELMS is NOT weighted ones (as given above) and you should not take the final percentage as the official one. The instructor will generate a weighted final score (and with normalization over different sections) at the end of the semester.