

Physics 180L (005/006/007) – Scientist & Engineering Physics Lab

Fall 2011 – Syllabus

General Information

Instructor: Brad Allured

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Office: LP 110

Mail box: Physics 2nd floor (Allured)

Office hours: Monday 3:30-4:30PM (and by walk-in/appointment)

Phone: 775-453-4652

Lab meeting time: Thursday, 8-10AM (005) / 10AM-12PM (006) / 1-3PM (007)

Class Description and Objectives:

The purpose of the physics laboratory is to allow students to witness the concepts and physical laws that are introduced in lecture. You will also be exposed to elementary laboratory techniques. Every class will have a short discussion introducing the procedures, concepts, formulas and instructions relevant to the experiment. Attendance and participation are mandatory (don't be late). You will choose one lab partner for the semester with whom you will perform experiments and write lab reports... Choose wisely. Some experiments will be performed in larger groups, but the reports will always be completed in pairs.

Course Requirements:

Lab Etiquette:

- No FOOD/DRINKS/SMOKING/APPLYING of COSMETICS in the labs.
- Please silence your cell phone and turn off all "distractions."
- You must clean up and shut off equipment after you are finished with your lab – Failing to doing so will affect your grade.
- Please report all damaged equipment so it can be replaced.
- Be respectful of the equipment and everyone in the lab.
- Disruptive, vulgar, or habitually tardy individuals will not be tolerated.
- Maintain a neat lab notebook (see guidelines) and have it signed by me before leaving the lab.
- Be safe and have fun.

Lab reports:

- There will be 11 lab experiments during the semester. The lowest scored lab report will be dropped.
- You are expected to read the lab experiments for understanding before class and have a printed copy of the manual with you in class.
- Lab reports are due the following class period at the beginning of each class. Each pair of students will turn in a group report. A lab report which is one day late will have its grade docked 20%. The grade will be docked an additional 10% for each week the lab report is late.
- Lab reports that contain copied or plagiarized material will be given a zero (and worse things may happen too).
- You will receive no credit for a report on an experiment you did not complete. You must present your lab book when turning in your report for the report to be accepted.
- Typewritten lab reports are preferred, neatly hand-written lab reports are also accepted.
- Illegible or unintelligible lab reports are unacceptable.
- You can turn in graphs on graph paper or printed out. Hand-drawn graphs on anything other than graph paper are unacceptable.
- Please follow the given format for the lab write-ups. This format can be found accompanying this syllabus on WebCampus.

Attendance:

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You are required to attend all of the classes. If you must miss a lab due to an excused absence (illness, emergency or pre-arranged absence), you should arrange to make up the lab in a different section. In the “special cases,” talk to me. No more than two labs can be done in other lab sections, and if you miss three or more classes you will receive a failing grade for the semester. There are no mulligans, rewrites or makeups. You are expected to be in class (in body and mind) on time.

Laboratory safety:

Experimental work exposes the experimenter to various kinds of potential hazards (electric shock, burns, cuts...). Every person working in the laboratory should be aware of their surroundings so as to avoid possible injury to themselves or anyone else. Pay attention to what you are doing and be aware of your surroundings to avoid injury and/or damage to the equipment. Report any accident immediately.

Other stuff:

- Believe it or not, I'm here to help, and want to see everyone succeed. Do not be shy about talking to me. If you have a problem, I'll work with you so we can find a solution. I've been in your place, and I can be a pretty understanding guy (from time to time).
- “Any student wishing to apply for academic accommodations or adjustments is requested to inform the instructor, or contact the Disability Resource Center (DRC, Thompson, Suite 101, phone 784-6000) directly, as soon as possible to arrange appropriate actions. The DRC will be able to answer any questions regarding accommodations or adjustments.”
- “Your student fees cover usage of the Math Center (784-443 or www.unr.edu/mathcenter), Tutoring Center (784-6801 or www.unr.edu/tutoring), and University Writing Center (784-6030 or www.unr.edu/writing_center). These centers support your classroom learning; it is your responsibility to take advantage of their services. Keep in mind that seeking help outside of class is the sign a responsible and successful student.”
- “All examinations, homework, and quizzes must be your own work: any act of plagiarism (cheating, piracy, theft, etc.). Plagiarism or otherwise obtaining grades under false pretenses” constitute academic dishonesty according to the code of this university. Academic dishonesty will not be tolerated and penalties can include canceling a student's enrollment without a grade, giving an F for the course or for the assignment. For more details, see the UNR General Catalog.”

Schedule:

Date	Experiment	Room (DMS)
15 September	Orientation Normal Distribution	212
22 September	Understanding Motion I & II Freefall	212
29 September	Force Table	208
6 October	Acceleration on Air-Track	212
13 October	Scalar Product	208
20 October	Conservation of Momentum	212
27 October	Uniform Circular Motion	210
3 November	Torque	212
10 November	Rotational Kinetic Energy	212
17 November	Standing Wave in Air	212
24 November	No Class - Thanksgiving	--
1 December	Linear Harmonic Motion	210

Grading and percentages:

- >90% => A
- 80–89% => B
- 70–79% => C
- 60–69% => D
- <60 => F