

PHYS 1404 General Physics II
Laboratory Syllabus
Spring 2013
Texas Tech University

Laboratory Instructor: _____
Section: _____

Laboratory Coordinator:

Dr. Keith West
Office: SC 116
Phone: 806-742-3761
Email: keith.h.west@ttu.edu

Laboratory Manual: Physics 1404 Lab Manual, Department of Physics Texas Tech University, (Stipes Publishing L.L.C, 2011).

Meeting Place: Science Building 119 Note: No food or drinks are allowed in the laboratory, including bottles and cups with lids.

Laboratory: Each laboratory meeting, will consist of working through one of the interactive laboratories in the Physics 1404 Laboratory Manual. It may also include working through questions or problems in the lab manual or home work assignments from the lecture portion of the class or from the laboratory instructor. There will be pretests and periodic quizzes on the laboratory material. Topics include electricity, magnetism, and optics. The laboratory and homework will be graded.

Laboratory homework: Each week, a laboratory homework will be assigned. It will be turned in the following week at the beginning of the laboratory period. It is late after the beginning of the laboratory period and late laboratory homework will not be accepted. The laboratory homework will count as 25% of your laboratory grade.

Quizzes: There will be quizzes given at the beginning of the laboratory period. Quizzes may or may not be announced. Quizzes will count as 25% of your grade.

Laboratory Write-up: The lab write-up will be completed each week as you answer the questions while working through the lab, as well as completing the summary at the end of the lab. You will turn in the lab at the end of each lab period. The laboratory write-up is 30% of your laboratory grade.

Participation: Coming to class on time, not leaving early and being “on-task” when you are in the lab counts as part of your participation grade. Also, working any departmental assessments, which may include a general pre-test, post-test or other surveys and surveys to be done online outside of class, will count toward your participation grade. For all of these things, you will get full credit, if you do them, and points will be subtracted from your participation grade if you do not do them. They will not be graded, except for completion. However, if they are not completed or are not taken seriously, you will have points taken off.

Obviously attendance is the most important part of participation. If you aren't here, you can't participate. Absences will be excused for university events, illness (documentation may be

required), funerals (documentation may be required and excuses for funerals are at Dr. West's discretion), court appearances (plaintiff, defendant, witness, juror, documentation **IS** required). Occasionally something so out of the ordinary occurs that you may feel should be grounds for being excused. Please see Dr. West if you feel you have extenuating circumstances. Excuses for extenuating circumstances are at Dr. West's discretion. (Note that long weekends or family trips do not count as extenuating circumstances.)

Students more than 20 minutes late without a valid reason will receive a 5% deduction in their participation grade. Each unexcused absence will result in a 10% deduction in your participation grade.

After attendance, conducting the investigation, taking part in class discussions, and group work in recitation are the most important parts of participation. If you do these things, you should be fine. Participation points will be lost if you socialize, play with lab equipment, fail to take part in group work, or are otherwise not on task. Cell phone usage or other violations of the lab rules that result in a student being dismissed will carry a 10% reduction in the participation grade.

Participation will count as 10% of your grade.

Recitation: The recitation is designed to help you with problem solving. Active participation will also help you on homework and exams. You will work with students in your group on solving problems, often homework problems or problems similar to homework problems. After you have worked on it for a while, you will discuss it with the class or with the TA. You may be asked, as a group, to present problems on the board or to the TA. Your active participation in recitation will count as 10% of your grade. You are required to attend and actively participate in the recitation part of the laboratory.

Tentative list of laboratory experiments:

Date	Activity
01/21 – 01/25	Math Review (Tuesday-Thursday only)
01/28 – 01/01	Electrostatic Forces and Coulomb's Law
02/04 – 02/08	Electric Fields and Potential (combination of two labs in manual)
02/11 – 02/15	Electric Circuits I
02/18 – 02/22	Kirchhoff's Circuit Rules
02/25 – 03/01	Introduction to Capacitors and RC Circuits
03/04 – 03/08	Magnetism I – Magnetic Fields
03/11 – 03/15	Spring Break
03/18 – 03/22	Magnetism II – Force on a Current-Carrying Wire
03/25 – 03/29	Magnetism III – Faraday's Law, Lenz's Law, and Induction
04/01 – 04/05	No Labs
04/08 – 04/12	Geometrical Optics II – Lenses and Images
04/15 – 04/19	Physical Optics
04/22 – 04/26	Spectroscopy
04/29 – 05/03	Nuclear Physics and Radioactivity

Grading:

Laboratory write up	30%
Laboratory homework	25%
Quizzes	25%
Participation	10%
Recitation	10%

A numerical average will be turned in to your lecture instructor at the end of the semester. Since many students like to think in terms of letter grades, your letter grade will be determined on the following scale: (55-65) D; (66-81) C; (82-91) B; (92-100) A.

I do use +/- grades one point either side of a grade boundary, e.g., grades of 80 or 81 earn a C+ while grades of 82 or 83 earn a B-.

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405.