

**PHYS 1403 General Physics I**  
**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](mailto:keith.h.west@ttu.edu)

**Laboratory Manual:** Physics 1403, Stipes Publishing.

**Meeting Place:** Science Building 102 Note: No food or drinks are allowed in the laboratory, including bottles and cups with lids.

**Laboratory:** Each laboratory meeting, will consist of two parts, working through one of the interactive laboratories in the laboratory manual and a “recitation” component. In the “recitation” part, you will be working on problem solving, conceptual problems, or combinations of both. You will work with students in your group on solving problems. There will also be group work, where the teaching assistant (TA), will help you with problem solving strategies.

**Laboratory homework:** A laboratory homework (not in the manual) will be assigned each week. 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 may be quizzes given during the recitation portion of the laboratory period. Quizzes may or may not be announced. They can include lecture, lab, and recitation content. Quizzes will be part of the recitation grade, which will count as 40% of your lab 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. 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, inappropriately 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 overall participation grade.

Participation will count as 10% of your grade.

**Recitation:** The recitation is designed to help you with problem solving and understanding difficult concepts. 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 part of the laboratory part of your grade. This means that you will actively work on problems when asked and turn in some problems for grading.

**Laboratory experiments:** The laboratory experiments are as listed in the laboratory manual, except that they may not always be worked in the same order as in the manual. Every effort will be made to keep the lab topic the same as is being covered in lecture that week or was covered in lecture the previous week, but please keep in mind that it will not always be possible to do so. New labs are being implemented this semester, so the schedule presented below is very tentative and is subject to change with little notice. As a result, it is possible that an additional laboratory or two may be added or replaced. Successful completion of the laboratory experiments will count as 40% of your lab grade.

**Tentative list of laboratory experiments:**

01/21 – 01/25	Math Review (Tuesday-Thursday only)
01/28 – 01/01	Experimental Uncertainty
02/04 – 02/08	Vector Analysis
02/11 – 02/15	One Dimensional Motion
02/18 – 02/22	Force and Motion
02/25 – 03/01	Gravitational Forces
03/04 – 03/08	The Ballistic Gun
03/11 – 03/15	Spring Break
03/18 – 03/22	Work and Energy
03/25 – 03/29	One-dimensional Collisions and Conservation of Momentum
04/01 – 04/05	No Labs
04/08 – 04/12	Rotational Dynamics (Handout)
04/15 – 04/19	Buoyancy
04/22 – 04/26	Periodic Motion
04/29 – 05/03	Either Waves or Latent Heat of Fusion (TBD)

**Grading:**

Laboratory	40%
Laboratory homework	25%
Participation	10%
Recitation and Quizzes	25%

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.