

PHYS 1403 General Physics I, Laboratory Syllabus, Fall 2008
Texas Tech University

Laboratory Instructor: _____

Section: _____

Coordinator of Instructional Labs

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PHYS 1403 Lab Coordinator

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Laboratory Manual: Real Time Physics Active Learning Laboratories, Module 1, Mechanics, David. R. Sokoloff, Ronald K. Thornton and Priscilla Laws (John Wiley and Sons, Inc., Hoboken, NJ, 2004).

Meeting Place: Science Building 102

Laboratory: Each laboratory meeting will consist of working through one of the interactive laboratories in the Real Time Physics laboratory manual. It may also include working through questions or problems in the lab manual or homework assignments from the lecture portion of the class or from the lab instructor. There may also be quizzes on the laboratory material. Topics include measurement, motion, forces, work and energy.

Pre-Lab preparation sheet: Each laboratory has a pre-lab preparation sheet. You should read through the laboratory for the coming meeting and answer the questions on the pre-laboratory preparation sheet ***before coming to class***. The sheets will be collected and graded for completion. Points will be subtracted from the participation part of your grade if the pre-lab is not completed and turned in.

Laboratory homework: A laboratory homework 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 at the beginning of the laboratory period. Quizzes will be announced. Quizzes will count as 20% of your 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 the pre-lab sheets and participation in departmental assessment, which may include a general pre-test, post-test or other surveys, will count toward your participation grade. For all of these things, you will get full credit, if you do them, such as filling out the pre-lab sheets, any surveys or pre- or post-tests administered, 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. Participation will count as 15% of your grade.

List of laboratory experiments:

1. Introduction to motion
2. Motion
3. Changing motion
4. Two-dimensional motion
5. Force and motion
6. Combining forces
7. Force, mass and acceleration
8. Gravitational forces
9. Passive forces and Newton's laws
10. One-dimensional collisions
11. Work and energy
12. Conservation of energy

Grading:

Laboratory, including in-class homework	40%
Laboratory homework	25%
Quizzes	20%
Pre-lab and participation	15%

Any student who because of a disability may require special arrangements in order to meet course requirements should contact the instructor as soon as possible to make any necessary accommodations. Student should present appropriate verification from AccessTECH. No requirement exists that accommodations be made prior to completion of this approved university procedure.