PHYS 1408 Principles of Physics I
Laboratory Syllabus
Fall 2010
Texas Tech University
Course Syllabus

Laboratory Instructor: ____________  
Section: ____________  

Laboratory 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.,  

Meeting Place: Science Building 105

Laboratory: Each laboratory meeting will consist of two parts, working through one of the  
interactive laboratories in the Real Time Physics laboratory manual and a “recitation” component.  
In the “recitation” part, you will be working on problem solving. 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.

Pre-Lab preparation sheet: Each laboratory has a pre-lab preparation sheet. You should read  
through the laboratory 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. They will include both lecture and lab questions and content. Quizzes will count as  
25% 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.
Laboratory Management: Laboratory management will be done through Blackboard. The site is www.blackboard.ttu.edu. You can use your eraider ID to log on. Grades will be posted on Blackboard and some surveys to be done outside of class will be administered on Blackboard.

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 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. It is also possible that an additional laboratory or two may be added or replaced.

Tentative list of laboratory experiments:

1. Introduction to Motion
2. Changing Motion
3. Force and Motion
4. Combining Forces
5. Force, Mass and Acceleration
6. Gravitational Forces
7. Work and Energy
8. Conservation of Energy
9. One-dimensional Collisions
10. Static Equilibrium
11. Simple Harmonic Motion

Grading:

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory</td>
<td>30%</td>
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<tr>
<td>Laboratory homework</td>
<td>25%</td>
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<tr>
<td>Quizzes</td>
<td>25%</td>
</tr>
<tr>
<td>Pre-lab and participation</td>
<td>20%</td>
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</tbody>
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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.