PHYS 1403 Principles of Physics I  
Laboratory Syllabus  
Summer II 2016  
Texas Tech University

Laboratory Instructor: __________
Section:__________

Laboratory Coordinator:
Dr. Keith West  
Office: SC 116  
Phone: 806-834-3651  
Email: keith.h.west@ttu.edu

Laboratory Manual: The manual is available from the Society of Physics Students. The locations and times are as follows:

M 12:30 PM -5:00 PM, July 11 – July 15, Room 004 in the basement of the Science Building. All manuals are $30.

**Students must purchase a lab manual before their first lab meeting. Students who do not have a lab manual will not be admitted to lab and due to most sections being full probably will not be allowed to make that lab up.** If you have a financial issue, please see Dr. West. He will make exceptions to the above requirement at his discretion.

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

Laboratory homework: A laboratory homework will be assigned each laboratory activity. It will be turned in the following lab meeting 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 30% of your laboratory grade.

M 12:30 PM -5:00 PM, July 11 – July 15, Room 004 in the basement of the Science Building. All manuals are $30.

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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.

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.)

The general policy in physics labs is that if you KNOW IN ADVANCE you will be absent, you need to try to arrange a make-up lab rather than assume the absence will be excused, even for the reasons listed above. For example, if you have lab on Thursday and will be appearing in court that Thursday, there is no reason not to try to make up the lab on Wednesday if possible. The reason for this is so you can gain a better understanding of the material, some of which is best learned through doing.

Obviously, if life happens, it isn’t always possible to make up a lab, but if you can, you should try to do so. Make-up labs will be at Dr. West’s discretion. He may simply excuse the absence, but please check with him before showing up to a lab section or assuming the absence is automatically excused. If you need to make up a lab or have it excused due to an unexpected absence, you must do so by the next laboratory meeting. Excuses presented at the end of the term will not be accepted.

Students are expected to arrive on time and be prepared to begin work when the lab starts. Please keep in mind that if someone is late, that person’s group will have to catch that individual up. This can result in the group not finishing the laboratory activity, and as a result everyone’s grade suffers. Therefore, students arriving more than 15 minutes late will not be admitted to lab. Dr. West recognizes that from time to time things happen which can delay someone. If something occurred to prevent the student from arriving on time, a makeup lab without penalty can be arranged at Dr. West’s discretion. Students who are late on a consistent basis will be given a warning to be on time. If that person continues to be late, he/she will not be admitted to lab and will not be allowed to make up that lab.

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 course participation grade as well as a zero for all work associated with that lab.

Participation will count as 25% of your lab grade.

**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.

Performing the experiment will count as 25% 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:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>07/13 – 07/14</td>
<td>Experimental Uncertainty</td>
</tr>
<tr>
<td>07/18 – 07/19</td>
<td>1-D Motion Part I</td>
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<tr>
<td>07/20 – 07/21</td>
<td>Vector Forces</td>
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<tr>
<td>07/25 – 07/26</td>
<td>2-D Projectile</td>
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<tr>
<td>07/27 – 07/28</td>
<td>Force and Motion</td>
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<tr>
<td>08/01 – 08/02</td>
<td>Gravity</td>
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<tr>
<td>08/03 – 08/04</td>
<td>Work and Energy</td>
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<tr>
<td>08/08 – 08/09</td>
<td>Collisions</td>
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**Grading:**

- Laboratory: 25%
- Laboratory homework: 30%
- Quizzes: 25%
- Participation: 10%
- Recitation: 10%

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.