

# Principles of Physics I

## Physics 1408-001

## Spring 2013

Professor Dr. Luis Grave de Peralta  
Time MWF 8:00-8:50 AM  
Place SC 007  
Office SC 016  
Hours MWF 9:00-10:00 AM and by appointment  
E-mail [luis.grave-de-peralta@ttu.edu](mailto:luis.grave-de-peralta@ttu.edu) **PREFERED CONTACT METHOD!**

**Texts:** *Physics for Scientists and Engineers with Modern Physics*, 8<sup>th</sup> edition, by Serway and Jewett bundled with WebAssign access code, published by Brooks/Cole CENGAGE. Comparison shop this text; it is way expensive. It is ordered and should be available at all 4 bookstores in town and on-line, prices vary. Any text version will do, we selected a loose leaf format for the bookstores (it is cheaper). The Laboratory Manual is available and may be bundled with the text at some bookstores.

**Course Coverage:** The course will cover material from chapters 1-22 in the text. We will cover kinematics, mechanics, statics, rotation, fluids, waves, and some thermodynamics. The depth of coverage will not be deep in parts of waves and thermodynamics.

**Grading Policy:** The following scores will be accumulated during the semester Labs, Recitation, On-Line Homework, Exam 1, Exam 2, Exam 3, and the comprehensive Final. The course grade will be based on the labs, recitation, on-line homework, three exams, and the final. **NO MAKEUP EXAMS WILL BE GIVEN.** The lowest grade of the 3 in-class exams and the final will be dropped. So, only the highest 3 of the 4 one-hour exams and final will count in determining your course grade. These exams count toward 70% of the course grade. The remaining 30% comes from the lab, recitation, and on-line homework equally. Your letter grade will, tentatively, be determined according to the following scale: 50 D; 65 C; 80 B; 90 A.

Hour exam I	Of these 5 scores, the lowest will be dropped. The remaining 4 count equally toward 70% of your class grade.	
Hour exam II		
Hour exam III		70%
Final		
Final		
Lab		10%
Recitation		10%
Homework		10%
Total		100%

**Labs:** The lab portion of the course has a separate syllabus that you will receive in the lab. In short, do the lab, write up the lab, attend recitation, learn how to do the problems. Lab is a required portion of the course. Recitation will help you with problems which figures into your homework and exam grades. Recitation is a very important and potentially useful part of the course.

**Homework:** Homework problems are assigned and graded on the web through the commercial site WebAssign. Once you are registered at that website you will be able to download the assignments. The assignments and due dates are posted. You will be able to retrieve the answers after the due date. Pay attention to the instructions on the homework website about how the homework is scored.

To access WebAssign you must register at [webassign.net](http://webassign.net). Make sure you get into the correct section of the course (Dr. Luis Grave de Peralta 1408-001 MWF 8:00-8:50 AM). The class key is **ttu 6085 8845** for our section. You will need to use your access code to sign in. You must self-register. Please use your name, in whatever form you want. Your student number is your R number and must be entered with the leading R, as is R12345678. If you do not have an access code (part of the text for the course), you will need to purchase one through the publisher's website. This website is not at TTU and you should give yourself plenty of time to submit answers. Sometimes the network can be slow or down.

The value of the assigned homework problems is that they are the basis for the problems on your exams. Doing well on the homework is crucial to your success in the course. ***The single best indicator of success in the course is success with the homework.*** We've done the experimental study, you must do the homework in order to do well in the course. Do not let the small percentage weight delude you into thinking these homework problems are in some way optional. The weight is kept small because we cannot verify who is responsible for your answers. The homework is the single best factor in determining how you do in the course.

**Exams:** Three one-hour exams will be given. You may bring a 3x5 note card to each the exams. This note card can be used to list any equations or words that help you in solving physics problems. **You will need a scantron sheet (orange, five answers) for each exam including the final.**

**Final:** A comprehensive final exam will be given. Each lecture section will give its own final exam. You may bring 2 note cards to the final as well.

**Exams and Final:** The 4 exams count 70% of the total course grade. Write down the scores from exam 1, exam 2, and exam 3, and the final twice. Strike out the lowest of these 5 numbers once. Thus if your lowest score is on one of the first 3 tests, that test gets dropped. If your lowest score is on the final, then the final is dropped 1 time, but remains 1 time.

**Core Competency Statement:** Students graduating from Texas Tech University should be able to: explain some of the major concepts in the Natural Sciences and to demonstrate an understanding of scientific approaches to problem solving, including ethics.

Learning Outcome	Assessment
Describe the basis of the scientific method	Ungraded pre- and post-tests, guided classroom discussion, in-class exams
Distinguish between a scientific theory and speculation	Ungraded pre- and post-tests, guided classroom discussion, in class exams
Quantitative understanding of energy and motion	Guided classroom discussions, lab exercises, homework, in-class exams

### Important Notes:

Any student who, because of a disabling condition, 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 at 335 West Hall or 806-742-2405.

If you expect to miss a class period due to the observance of a religious holy day, University policy states that you must inform your instructor, in writing, by the sixteenth day of the semester. Accommodation for exams and assignments can then be made.

The faculty is strongly committed to upholding standards of academic integrity. These standards, at the minimum, require that students **never** present the work of others as their own.

### Strategy for Success:

\*\*\*Be prepared! Study your notes and read the material in the text *before* we cover it in class. This will help you keep up, will make for more productive classroom interaction, and will help keep you prepared for those unannounced in-class quizzes that will make up part of your semester grade.

\*\*\*Begin all homework assignments as soon as possible. The assignments take time and thought. The homework isn't graded separately, but the quizzes and test questions are based on the problems you do in the homework. Homework is essential to pass.

\*\*\*Build a study group or join one. Students helping each other is very effective. Do not join a study group because you all share an interest in a football team or a particular flavor of music. You need a mix of strong and weak students.

\*\*\*Once you can work through a problem with your notes, book, study group, etc., write the question down on a blank sheet of paper and then try to rework it entirely on your own a day or so later.

\*\*\*Never wait until the night before a test to "begin" studying.

\*\*\*The course schedule is fast. Don't get left behind.

\*\*\*Come see your instructor when you get stuck--that's why they pay me the big bucks! I am always willing to help anyone who tries.

\*\*\*There are also TAs, SI instructors, and help sessions available. Avail yourself of all resources.

**Classroom Etiquette:**

- It is extremely rude to leave during a lecture. Since attendance of lectures is optional, please do not come to the lecture if you are unable to attend for the full duration. Physical illness is an obvious exception. If you have an expected reason to depart early, please inform the lecturer at the beginning of class and sit in a convenient location for leaving without disturbing the class.
- Reading newspapers or unrelated material, texting or talking on your cell, visiting with your neighbor, and irrelevant activities are not allowed in class. Do these things and you will be asked to leave.
- No laptops or any other electronic devices are allowed in class unless the need for such device for reason of a disability is documented by AccessTECH.