

# Physics 1408-002

## Principles of Physics I Course Outline Spring Semester 2008

**Instructor:** Thomas L. Gibson **Office:** Sc 27 **Office Hours:** 10:00-11:00 a.m. (M-F)

**Required Text:** *Physics For Scientists And Engineers*, 4<sup>th</sup> edition, by Giancoli bundled with *Mastering Physics* (student access kit) and *Tutorials in Introductory Physics* (2 volumes) by McDermott et al.

**Course Coverage:** Time permitting, the course will cover material from the first 20 chapters in the text.

**Course Web page:** [www.phys.ttu.edu/~ritlg/courses/p1408/index.html](http://www.phys.ttu.edu/~ritlg/courses/p1408/index.html)

### Grading Policy:

The following six scores will be accumulated during the course of the semester:

OHLT; Exam 1; Exam 2; Exam 3; Final Exam; Final Exam.

The course grade will be the average of the OHLT and the four highest exam scores of the five listed above. **NO MAKEUP EXAMS will be given.** Your letter grade will be determined on the following scale:

(55-65) D; (66-81) C; (82-91) B; (92-100) A. I do use +/- grades one point either side of a grade boundary, e.g., grades of 80 or 81 earn a C<sup>+</sup> while grades of 82 or 83 earn a B<sup>-</sup>.

### OHLT:(Online Homework + Lab Tutorials)

*Online homework* from the Mastering Physics website will be assigned and graded on a regular basis. This will constitute half of the credit for the OHLT category.

*Lab Tutorials* will be conducted during the assigned Laboratory periods. Also, short (unannounced, lecture period) quizzes based on *assigned* reading, homework, online quizzes, tutorials, and material covered in class will be given approximately once a week. The Lab Tutorial grade will constitute the other half of the credit for the OHLT category.

Finally, if you take **all** of the online quizzes and achieve a final average  $\geq 92$ , at the end of the semester you will receive 20 **bonus** points in your OHLT category.

**Hour Exams:** Three one-hour exams will be given. You will need a scantron sheet for each exam.

**Final:** A *comprehensive* two-and-a-half-hour final exam will be given. You will need a scantron sheet for this exam.

### Important Dates:

January 9 = Wednesday---Classes begin for the Spring 2008 Semester.

January 21 = Monday---Martin Luther King Jr. Day. University holiday.

March 12 = Wednesday---Last day to drop a course.

March 15-23 = Spring Break.

March 24 = Monday---Day of no classes.

March 25 = Tuesday---Classes resume.

April 29 = Tuesday---Last day of classes.

May 5 = Monday---**Final Exam (Chapters 1-20)** (4:30-7:00 p.m.)

### Course Goals

This course is intended to acquaint students with the basic laws of physics, to develop a better understanding of physical science in general, and help prepare you for other upper-division science and engineering classes. To this end, the course will emphasize a mix of conceptual understanding and standard "end-of-chapter" homework solving skills.

### Expected Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Describe the basis of the scientific method.
2. Distinguish between a scientific theory and speculation.
3. Explain at a quantitative level the fundamental elements of energy and motion.

**Methods for Assessing the Expected Learning Outcomes**

The expected learning outcomes for the course will be assessed through:

Guided Classroom Discussion, Tutorial Exercises and Homework, Online Homework, and Multiple-Choice Exams.

**Approximate Dates for One-hour Exams:**

- Exam 1; Monday, February 4, 2008.
- Exam 2; Monday, March 3, 2008.
- Exam 3; Wednesday, April 9, 2008.

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**Important Notes:**

- 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 at 335 West Hall or 806-742-2405.
- 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, and **never** take unfair advantage of any member of the Texas Tech community. Further, rude, disruptive, or disrespectful behavior has no place in the classroom and will not be tolerated.

**Strategy for Success:**

- Be prepared! Study your notes, read the material in the text *before* we cover it in class, and take advantage of the online resources. This will help you keep up, will make for more productive classroom interaction, and will help keep you prepared for exams, homework, and 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.
- 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.
- See your instructor if you are stuck---that's why they pay me the big bucks!