

Course Syllabus

General Physics II (PHYS 1404-002, CRN: 40293)

Spring 2013

Instructor: Dr. Mohammad Alwarawrah

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Office: Sc 037

Class: MWF 10:00-10:50 am in Sc 010

Office Hours: MWF 11:00 am -12:00 noon or by appointment

Required Text: *College Physics, Reasoning and Relationships*, 2nd edition, by Giordano with *Enhanced Web Assign* (online homework student access kit) **Bundle ISBN: 9781285109763** and *Laboratory Manual for Physics 1404*.

This course satisfies part of the Natural Science core curriculum requirement. The objective of the study of the natural sciences component of a core curriculum is to enable the student to understand, construct, and evaluate relationships in the natural sciences, and to enable the student to understand the bases for building and testing theories. The natural sciences investigate the phenomena of the physical world.

Course Purpose:

Students graduating from Texas Tech University should be able to explain some of the major concepts in the natural sciences and demonstrate an understanding of scientific approaches to problem solving, including ethics.

Expected Learning Outcomes	
Learning Outcome	Assessment
Demonstrate a basic understanding of optics, E&M fields, simple circuits, and modern physics.	Beginning of the semester pretest and an end of the semester posttest.
Develop facility with optical and electrical measurements.	Evaluation of laboratory data.
Verify the centrality of experiment to the scientific method.	Evaluation of written laboratory reports.

Course Coverage: Time permitting, the course will cover material from chapters 17-30 in the text book.

Grading Policy:

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

OHLR; Exam 1; Exam 2; Exam 3; Final Exam; Final Exam.

The course grade will be the average of the OHLR and the four highest exam scores of the five

listed above (each weight 20%). **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⁺ while grades of 82 or 83 earn a B⁻.

OHLR:(*Online Homework + Laboratory/Recitation*)

Online homework from the website: <http://www.webassign.net> (use Class Key "ttu 5730 6991" for our section) will be assigned and graded on a regular basis. This will constitute half of the credit for the OHLR category.

Laboratory/Recitation will be conducted during the assigned lab periods. Your laboratory/recitation score will constitute the other half of the credit for the OHLR category.

Exams: Three class period 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 also need a scantron sheet for this exam.

Important Dates:

January 16 = Wednesday ---Classes start for the Spring 2013 Semester.

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

March 9-17 = Saturday-Sunday--- Spring Vacation.

March 27 = Wednesday ---Last day to drop course.

May 7 = Tuesday---Last day of classes.

May 11 = Saturday ---**Final Exam (Chapters 17-30)** (10:30 a.m. to 1:00 p.m.) in SC 010 unless we are notified otherwise.

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 physics and engineering classes. To this end, the course will emphasize a mix of laboratory, conceptual understanding and standard "end-of-chapter" homework solving skills.

Approximate Dates for In-class Exams

- Wednesday, Feb 13, 2013.
- Wednesday, March 20, 2013.
- Wednesday, April 17, 2013.

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.
- Rude, disrespectful, or disruptive behavior 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 those exams that will make up most 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.
- Physics requires a lot of work outside the classroom. Don't get behind.
- See your instructor if you are stuck--that's why they pay me the big bucks!