I. Course: Physics 1302 - Introductory General Physics II

A. Catalog Description: Electromagnetism and modern physics.

B. Prerequisites: PHYS 1301. Primarily for majors other than physics and engineering. Credit may not be applied toward a degree for PHYS 1302 and University Physics II, PHYS 1322.

II. Course Learning Objectives: The objective of this course is to learn the principles of electromagnetism and modern physics.

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

1. comprehend and apply laws such as Gauss’ law, Coulomb’ laws and Kirchoff’s law;
2. be able to apply basic physics laws to solve real life problems;
3. to develop the processes of logical thinking and reasoning.

Other learning outcomes include:

1. Students completing this course will be able to convey knowledge of the basics principles of physics and be able to use these principles to solve elementary problems.
2. Students will be able to take a real life problem and use physical principles and basic mathematical tools to describe the problem.
3. Student will have the ability to communicate orally and in writing in a clear concise manner the concepts of Physics.

III. Course Content: This course will cover chapters 16-32 which includes the following topical areas:

1. Electric Charge, Forces and Fields
2. Electric Potential and Potential Energy
3. Electric Current and DC Circuits
4. Magnetism and Faraday's law
5. Electromagnetic Waves
6. Optics
7. Quantum and Atomic Physics
8. Thermal Physics

IV. Course Structure:
The web address for the class is www.yourclasswebaddress.

V. Textbooks


VI. Course Requirements

A. Warm up Assignments: Reading quizzes covering the material from the reading assignment, consisting of 2-3 questions/problems, will be assigned over Blackboard for each chapter. The quizzes will be available at least 24 hours before they are due and they will be due by the beginning of the lecture time. There will be a time limit for taking the quiz and you will be allowed 2 attempts for each quiz. Solutions for the quizzes will be discussed during the lecture and will be posted on the class website.

B. Written Assignments: (See Pearson Mastering Physics for HW assignments) 10 or more homework problems will be assigned at the beginning of each chapter and will be due approximately one week from that date. Late homework is only accepted with a valid excuse. (www.pearsonmastering.com)

C. Exams: There will be three regular exams and a final exam for a total of four exams for the course.

The regular exams will be given during the Friday examination period and the date of each exam will be announced one week in advance. They will cover 2-5 chapters and will consist of 5-20 multiple choice and possibly 2-3 free response questions.

The final exam will be comprehensive covering all chapters covered for the course. The format of the final exam will be similar to that of a regular
exam. This exam will be given during the University Departmental exam scheduled time.

There are no makeup exams for this course. The lowest exam score will be replaced by the final exam score if the final exam score is higher.

D. Teamwork Component: A team work component will be evaluated in this course by one of the two methods below

- Concept test will be administered during lecture for each chapter. Answers for the concept tests will be submitted using a personal remote system (clicker). Students will discuss these questions in teams of 2-3 students as a method of peer instruction. Each clicker costs $40 plus tax. For the detailed Clicker purchasing information, please contact

Barnes & Noble in the UC
4800 Calhoun Rd.
126 University Center
Houston, TX 77204
Phone: 713-748-0923

NOTE: You can use your book loan to buy a clicker through the bookstore. See Blackboard for clicker registration instructions.

VII. Evaluation and Grading

5% Teamwork Component
9% Reading Quizzes
10% Homework
17% Regular Exam I
17% Regular Exam II
17% Regular Exam III
25% Final Exam (Day, Date, Time and location)

Policy on grades of I (Incomplete): The grade of "I" (Incomplete) is a conditional and temporary grade given when a student, for reasons beyond his or her control, has not completed a relatively small portion of all requirements. Sufficiently serious, documented situations include illness, death in the family, etc.

VIII. Consultation

My office is located in room # and building. My mailbox is located in the Physic office,
room 617 in Science and Research #1. My office hours will be from time and days. If you cannot see me during those times, you may schedule an appointment with me by calling me at (713) 743-3507 or e-mailing me at e-mail address@uh.edu.

IX. Bibliography

References: Physics, Algebra/Trig, Eugene Hecht; Fundamentals of Physics, Halliday, Resnick, and Walker; The Feynman Lectures on Physics, R. Feynman, R.B. Leighton, and M. Sands

Addendum: Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance.

Academic Honesty: It is each student’s responsibility to read and understand the Academic Honesty Policy found at http://catalog.uh.edu/content.php?catoid=6&navoid=1025.

Religious Holy Days: Students whose religious beliefs prohibit class attendance or the completion of specific assignments on designated dates may obtain an excused absence. To do so, please make a written request for an excused absence and submit it to your instructor as soon as possible, to allow the instructor to make arrangements. For more information, see the Student Handbook. http://catalog.uh.edu/content.php?catoid=4&navoid=791.

Standard Disclaimer: This syllabus is subject to change at the discretion of the instructor.