I. Course: Physics 1322 - University Physics II

A. Catalog Description: Primarily for science and engineering majors. Prerequisite: Thermodynamics, electricity, magnetism, electromagnetic waves, optics, and modern physics.

B. Prerequisites: Credit for or concurrent enrollment in MATH 2433. Credit may not be applied toward a degree for PHYS 1322 and PHYS 1302.

II. Course Objectives: The objective of this course is to learn the principles of electricity and magnetism, understand the concept of thermodynamics and be able to apply these concepts to solve problems.

Upon completion of this course, students will be able to:
1. master the physical concepts of electricity and magnetism;
2. be able to apply these to obtain solutions to technical problems;
3. use this scientific foundation to continue studies in more advanced courses in science and engineering.

Other learning outcomes include:
1. Students completing this course will be able to convey knowledge of the principles of physics and be able to use these principles to solve problems.
2. Students will be able to take a real life problem and use physical principles and mathematical tools to describe the problem.

III. Course Content: This course will cover chapters 17 - 36 which include the following topical areas:
1. Thermodynamics
2. Theory of Gases
3. Electric Charge and Electric Fields
4. Gauss’ Law
IV. Course Structure:
The web address for the class is www.phys.uh.edu.

V. Textbooks:
*University Physics with Modern Physics*, 13th edition, by Young and Freedman/Sears and Zemansky. *Binder version with access code to Mastering Physics is available at the UH bookstore. The access code with or without an e-book is available at www.pearsonmastering.com. See the course website for more options for purchasing the textbook.*

VI. Course Requirements

A. 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)

B. Exams: There will be three one and a half hour exams and a three hour final exam for a total of four exams for the class.

The regular exams are each worth 20% of your final grade for a total of 60% for the three exams. They will cover 2-6 chapters. Partial credit will be given.

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 scheduled time and will be worth 25% of your final grade.

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.

C. 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
10% Homework
20% Regular Exam I
20% Regular Exam II
20% Regular Exam III
25% Final Exam (Day, 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 ## of Science and Research #1. My mailbox is located in the Physic office, room 617 in Science and Research # 1. My office hours will be from ##-### pm on Mondays and Wednesdays.

IX. Bibliography

References: 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.