

UC 10511 09F

CBM003 ADD/CHANGE FORM

APPROVED DEC 09 2009

Undergraduate Council
 New Course Course Change
 Core Category: Nat Sci Effective Fall 2010

30

or

Graduate/Professional Studies Council
 New Course Course Change
 Effective Fall _____

RECEIVED OCT 16 2009

1. Department: PHYS College: NSM
2. Faculty Contact Person: Donna Stokes Telephone: 33588 Email: dstokes@uh.edu
3. Course Information on New/Revised course:
 - Instructional Area / Course Number / Long Course Title:
PHYS / 1302 / Introductory General Physics II
 - Instructional Area / Course Number / Short Course Title (30 characters max.)
PHYS / 1302 / INTRODUCTORY GENERAL PHYSICS I
 - SCH: 3.00 Level: FR CIP Code: 40.0801.00 Lect Hrs: 3 Lab Hrs: _____
4. Justification for adding/changing course: To more accurately reflect course content/level
5. Was the proposed/revised course previously offered as a special topics course? Yes No
 If Yes, please complete:
 - Instructional Area / Course Number / Long Course Title:
____ / ____ / _____
 - Course ID: _____ Effective Date (currently active row): _____
6. Authorized Degree Program(s): _____
 - Does this course affect major/minor requirements in the College/Department? Yes No
 - Does this course affect major/minor requirements in other Colleges/Departments? Yes No
 - Can the course be repeated for credit? Yes No. (if yes, include in course description)
7. Grade Option: Letter (A, B, C ...) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)
8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
PHYS / 1302 / Introductory General Physics II
 - Course ID: 39071 Effective Date (currently active row): 82007
9. Proposed Catalog Description: (If there are no prerequisites, type in "none".)
 Cr: 3. (3-0). Prerequisites: PHYS 1301. Description (30 words max.): Primarily for majors other than physics and engineering. Credit may not be applied toward a degree for both PHYS 1302 and PHYS 1322. Thermodynamics, electromagnetism and modern physics.

10. Dean's Signature: _____ Date: 13 Oct '09

Print/Type Name: Dean John Bear

U N I V E R S I T Y *of* H O U S T O N
CORE CURRICULUM COURSE REQUEST

Originating Department/College: Physics/NSM

Person making request: Donna W. Stokes Telephone: 713-743-3588

E-mail: dstokes@uh.edu

Dean's signature:  Date: 4 Dec '09.

I. General Information:

Course number and title: Phys 1302 Introductory General Physics II

Catalog description must be included on completed CBM 003 form and attached to this document.

Category of Core for which course is being proposed (mark only one):

- Communication
- Mathematics
- Mathematics/Reasoning (IDO)
- American History
- Government
- Humanities
- Visual/Performing Arts Critical
- Visual/Performing Arts Experiential
- Natural Sciences
- Social/Behavioral Sciences
- Writing in the Disciplines (IDO)

II. Objectives and Evaluation (respond on one or more separate sheets):

Call ext. 3-0919 for a copy of "Guidelines for Requesting and Evaluating Core Courses" or visit the website at www.uh.edu/academics/corecurriculum

A. How does the proposed course meet the appropriate Exemplary Educational Objectives (see **Guidelines**). Attach a syllabus and supporting materials for the objectives the syllabus does not make clear.

See attached syllabus

B. Specify the processes and procedures for evaluating course effectiveness in regard to its goals.

The outcome of this course is to provide knowledge of physical science, mathematics, and statistics required to support an understanding of Physics. Upon completion of this course, the student will have the ability to communicate orally and in writing in a clear concise manner, evidence of their scientific knowledge. To evaluate the courses contribution to the core curriculum, an evaluation of the students' achievements is attained through samples of students' work. Students' communication of solutions to both conceptual questions and word problems on final examinations must be logical and organized and must be understandable to a trained physicist. They must also demonstrate the ability to properly use mathematics to obtain solutions.

Also, to evaluate the courses contribution to the core curriculum, an end of the semester course evaluation form designed for lecture based classes is administered. The forms consist of 20 questions which cover quality of the information covered in the course, course organization, examination fairness and textbook quality. The questions also emphasize the quality of the instructor, including instructor-student interaction, instructor's overall knowledge of the material covered and the instructor's effectiveness for the course. The form also includes a comment section in which students can write in any additional comments regarding the course, which were not covered by the questions on the evaluation.

C. Delineate how these evaluation results will be used to improve the course.

Samples of student exams are evaluated by the faculty to determine if the expected outcomes of the course are met. In addition, statistics from the course evaluation forms are collected at the end of the semester. Statistics from all sections of the course are compared and inferences about the quality of the course, textbook and the instructors' teaching skills are determined. These results are disseminated to the undergraduate studies committee of the department, as well as to the all instructors in the department, so that the necessary course adjustments can be made.

SVP. Effective 5/2/08. Replaces all previous forms, which may no longer be used.



UNIVERSITY of HOUSTON

COLLEGE OF NATURAL SCIENCES & MATHEMATICS

HTTP://NSM.UH.EDU

COURSE TITLE/SECTION: Physics 1302 General Physics II/11135

TIME: 2:30 - 4 pm TTh

LOCATION: SEC - Rm. #516

FACULTY: Dr. Rebecca Forrest

OFFICE HOURS:

1-2 pm MWF and by appointment
Science and Research #1, Rm. 510 B

E-mail: rforrest@uh.edu

Phone: (713) 743-3507

FAX: (713) 743-

3589

I. Course: Physics 1302 - 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 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 include 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. AC Currents
6. Electromagnetic Waves
7. Optics
8. Relativity, Quantum and Atomic Physics
9. Thermal Physics

IV. **Course Structure:**

The web address for the class is <http://beta.phys.uh.edu/~rforrest>.

V. **Textbooks**

Physics, Third Edition, James S. Walker. Binder version with access code to Mastering Physics is available at the UH bookstore.

VI. **Course Requirements**

- A. **Warm up Assignments:** Reading assignments will be given 3-4 times during the semester. **Reading quizzes** covering the material from the reading assignment, consisting of 2-3 questions/problems, will be assigned over WebCt. 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:** 3-7 **homework** problems will be assigned at the beginning of each chapter and will be due approximately one week from that date at the beginning of class.
- C. **Exams:** There will be four **regular exams** and a **final exam** for a total of five exams for the class.

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 2-4 chapters and will consist of 2 to 5 problems. 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.

- D. **Extra Credit:** Extra credit points will be given via questions answered during lecture using the personal remote system. Each student will be responsible for purchasing a remote and registering the remote through einstruction.com. Remotes may be purchased at:

UH Discount Software
116 PGH Building 8:00 am – 8:00 pm Monday-Friday
713-743-1145
software@uh.edu
www.uh.edu/softwarestore

They accept Amex/MC/Visa, cash and check and you must bring a student ID to buy the remote. Instructions for enrolling your remote will come with the remote or can be found on the class website.

VII. Evaluation and Grading

5%	Reading Quizzes
15%	Homework
14%	Regular Exam I
14%	Regular Exam II
14%	Regular Exam III
14%	Regular Exam IV
24%	Final Exam

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 501-B 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 1 - 2 pm on Mondays, Wednesdays and Fridays. If you can not see me during those times, you may schedule an appointment with me by calling me at (713) 743-3507 or e-mailing me at rforrest@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.

It is each student's responsibility to read and understand the Academic Honesty Policy found in the Student Handbook, which can be found at <http://www.uh.edu/dos/hdbk/acad/achonpol.html>.

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