

UC 10510 09F

CBM003 ADD/CHANGE FORM

APPROVED DEC 9 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

- Department: PHYS College: NSM
- Faculty Contact Person: Donna Stokes Telephone: 33588 Email: dstokes@uh.edu
- Course Information on New/Revised course:
 - Instructional Area / Course Number / Long Course Title:
PHYS / 1301 / Introductory General Physics I
 - Instructional Area / Course Number / Short Course Title (30 characters max.)
PHYS / 1301 / INTRODUCTORY GENERAL PHYSICS I
 - SCH: 3.00 Level: FR CIP Code: 40.0801.00 Lect Hrs: 3 Lab Hrs: _____
- Justification for adding/changing course: To more accurately reflect course content/level
- 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): _____
- 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)
- Grade Option: Letter (A, B, C ...) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)
- 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 / 1301 / Introductory General Physics I
 - Course ID: 39069 Effective Date (currently active row): 82007
- Proposed Catalog Description: (If there are no prerequisites, type in "none".)
 Cr: 3. (3-0). Prerequisites: MATH 1330 or equivalent. Description (30 words max.): Primarily for majors other than physics and engineering. Credit may not be applied toward a degree for both PHYS 1301 and 1321. Elementary principles of mechanics.
- 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 1301 Introductory General Physics I

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

CBM003 form attached

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 1301 General Physics I/12380

TIME: 2:30-4 pm MW

LOCATION: SEC- Rm. 105

FACULTY: Dr. Donna Stokes **OFFICE HOURS:** 2-3 pm TTH and by appointment
Science and Research #1, Rm. 531 C

E-mail: dstokes@uh.edu **Phone:** (713) 743-3588 **FAX:** (713) 743-3589

I. Course: Physics 1301 - General Physics I

A. Catalog Description: Primarily for majors other than physics and engineering, Credit may not be applied toward a degree for both Phys1301 and Phys1321. Elementary principles of mechanics and thermodynamics.

B. Prerequisites: Completion of Math 1330 or equivalent and satisfactory score on diagnostic exam

II. Course Objectives: The objective of this course is to learn the principles of mechanics, sound and waves and develop the problem solving skills necessary to apply those principles to physical systems using algebra. Upon completion of this course, students will be able to:

1. clearly understand and apply Newton's Laws
2. proficiently solve problems
3. understand the formalisms of the theory and mathematical technique used to solve problems

III. Course Content: This course will include the following topical areas:

1. 1-D, 2-D and 3-D Motion
2. Newton's Laws
3. Work and Energy
4. Conservation of Energy
5. Momentum
6. Oscillatory Motion
7. Waves and Sound
8. Fluids
9. Thermal Physics

IV. Course Structure:

The web address for the class is www.uh.edu/~dwstokes/.

V. **Textbook**

Physics by James Walker (3rd ed., Pearson/Prentice Hall), available at the UH bookstore.

VI. **Course Requirements**

A. **Reading 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:** 3-7 **homework** problems will be assigned at the beginning of each chapter and will be due approximately one week from that date. Three of the assigned problems will be chosen to be graded. They will be graded on a scale of 0 to 5, where 5 points are given for a completely correct solution and 0 points for a totally incorrect solution.

Exams: There will be one **diagnostic exam**, three **regular exams** and a **final exam** for a total of four exams for the class. The **diagnostic exam** can be taken from December 7th - 16th and January 21st -27th between 9 am and 7 pm in the CASA testing center located in room 222 of Garrison Gym. This exam will cover algebra, trigonometry, geometry and math word problems. Grades on this exam will be used to predict your performance in the course. **The diagnostic exam is worth 3% of your final grade. If you score above 70%, you should be well prepared to pass the course, 51 - 70%, you should review algebra , trigonometry and calculus, 50% and below, you should consider dropping the course or re-enrolling once you have improved your math and problem solving skills**

The **regular exams** will be given during the scheduled examination period for this course which is on Fridays from 5:30 – 7:00 pm (see note on the course listing. The regular exams will cover 2-4 chapters and will consist of 2 to 3 problems each worth 10 – 20 points and 3-4 conceptual questions each worth 5 points. Partial credit will be given. Each regular exam will be worth 14 % of your final grade for a total of 42% for the three regular exams. 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.

C. **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.

Notes: For all exams you may use any type of calculator. A formula sheet will be provided with all necessary formulas needed to solve the problems. A listing of homework assignments, with due dates and exam dates with the chapters to be covered on the exam can be found on my website at <http://www.uh.edu/~dwstokes>. Solution sets for all homework, quizzes and exams will also be posted on my website 2-3 days after they have been turned in to me.

VII. Evaluation and Grading

10% Reading Quizzes
20% Homework
3% Diagnostic Exam
14% Regular Exam I
14% Regular Exam II
14% Regular Exam III
25% Final Exam

Policy on grades of I (Incomplete): Incompletes will be given only when documentation has been submitted to support the need to receive an incomplete, i.e., medical statements.

VIII. Consultation

My office is located in room 531-C 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 2 - 3 pm on Mondays and Wednesdays. If you can not see me during those times, you may schedule an appointment with me by calling me at (713) 743-3588 or e-mailing me at dstokes@uh.edu. The web address for the class is <http://www.uh.edu/~dwstokes/>.

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.

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