



COURSE TITLE/SECTION: Physics 1301 Introductory General Physics I/Class Number 14346

TIME: Mo & We, 4 – 5:30 p.m. **LOCATION:** SR Room 116

FACULTY: Rene Bellwied **OFFICE HOURS:** Mo & We 2:45-3:45 p.m. & by appointment
SR, Room 406-A

E-mail: bellwied@uh.edu **Phone:** (713) 743- 3548 **FAX:** (713) 743-3589

I. Course: Physics 1301 - Introductory General Physics I

A. Catalog Description: Elementary principles of mechanics and heat.

B. Prerequisites: [MATH 1330](#). Primarily for majors other than physics, mathematics, and engineering. Credit may not be applied toward a degree for both [PHYS 1301](#) and University Physics I, [PHYS 1321](#).

II. Course Objectives: The objective of this course is Learn the principles of mechanics through application of Newton's laws a.

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

1. comprehend the fundamental principles in mechanics.
2. use the formalisms of the theory and mathematical techniques to solve problems. This involves application, analysis, and synthesis of the fundamental principles.

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 chapter 1 – 15 which include the following topical areas:

1. Vector in Physics
2. Newtonian Mechanics: Motion in 1-D and 2-D
3. Work and Energy
4. Momentum and Collisions
5. Rotational Kinematics, Dynamics and Energy
6. Gravity
7. Oscillations about Equilibrium
8. Waves and Sound
9. Fluids

IV. **Course Web-Site:**

Go to: <http://www.masteringphysics.com>
Course ID: MPBELLWIED14346

V. **Textbooks**

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

VI. **Course Requirements**

- A. Reading 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 announced and given at the beginning of the following lecture. Solutions for the quizzes will be discussed during the lecture.
- B. Homework Assignments:** Homework will be assigned each week using Mastering Physics every week, and is due one week after assignment by midnight on that day. Go to <http://www.masteringphysics.com> and enroll with the above course ID. You will be given 10 questions in every assignment. You can attain a maximum of one point per question. You will be penalized for every wrong attempt (5% deduction) until the correct attempt is made. Only six attempts are allowed. All homework counts towards the final grade. **Late homework will not be accepted.**
- C. Exams:** There will be one **diagnostic exam**, three **regular exams** and a **final exam** for a total of five exams for the class. The **required diagnostic exam** for this course will test your basic mathematical skills in algebra, geometry, trigonometry and word problem solving. The exam consists of 20 multiple choice questions. It is a one hour exam and no calculators are

allowed. The exam will be administered by CASA Testing Center **January 7 – 23rd**. You can log onto the CASA website to make a reservation at <http://casa.uh.edu> or you may go to room 222 Garrison Gym. You will be able to reserve a spot to take the exam approximately one week before the exam opens.

The diagnostic exam is worth 3% of your final grade for the course. If you score above 70%, you should be well prepared to pass the course, 51 - 70%, you should review algebra, trigonometry and pre-calculus, 50% and below, you should consider dropping the course or re-enrolling once you have improved your math and problem solving skills. **YOU DO NOT NEED TO SEND PROOF OF PREREQUISITE FOR THIS COURSE.**

If you score below 65% on the diagnostic exam, you can take a math tutorial to increase your diagnostic exam score to 65% but no greater. You must complete all tutorial sub-test as well as the final test with a score of 80% or greater.

OR

If you wish to improve your math skills, you can complete a math tutorial, which has been set up by the Department of Physics. The math tutorial course is set up through My Readiness Test, an online math tutorial offered by the publisher of the textbook for the course. If you purchased a textbook from the UH Bookstore, you will receive a free access code to My ReadinessTest. If you did not purchase your textbook through the UH bookstore, you can purchase a code for My Readiness test for \$15 through the publisher's website listed below.

http://www.myreadinesstest.com/support/mpt/contactus_stu.htm

See the Department of Physics website after December 14th for more details on how to register and access the math tutorial through My Readiness Test.

Statistics: A study on 543 student enrolled in Phys 1301 at UH, showed that of the students who scored below 65% on the diagnostic exam, 78% of those completing the math tutorial passed the course while only 45% of those who did not complete the math tutorial passed the course. These statistics show that it may be your advantage to complete the math tutorial to increase your chances of passing the course.

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 and exam schedule on next page). The regular exams will cover 2-4 chapters and will consist of 10-20 multiple choice problems. 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 Departmental final 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.

VII. Evaluation and Grading

3%	Diagnostic Exam
10%	Reading Quizzes
20%	Homework
14%	Regular Exam I
14%	Regular Exam II
14%	Regular Exam III
25%	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 406-A 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 2:45-3:45 p.m. on Mo & We. If you cannot see me during those times, you may schedule an appointment with me by calling me at (713) 743-3548 or e-mailing me at bellwied@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>.

Academic Dishonesty: Please see following website for information regarding academic dishonesty.

<http://www.uh.edu/academics/catalog/policies/academ-reg/academic-honesty/>

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://www.uh.edu/dos/publications/>

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

Spring 2012 Course Schedule - MW

	Chapter	Comments
14-Jan-13	Intro, 1	
16-Jan-13	2	
21-Jan-13	MLK day	
23-Jan-13	2	
28-Jan-13	3&4	
30-Jan-13	4	<i>Jan 30 - Last Day to Drop Without a W</i>
4-Feb-13	5	
6-Feb-13	5	
11-Feb-13	6	
13-Feb-13	6	
18-Feb-13	6	
20-Feb-13	7	
22-Feb-13	Exam 1, Friday 5:30 - 7pm	Covering chapters 1-5
25-Feb-13	7	
27-Feb-13	8	
4-Mar-13	8	
7-Mar-13	9	
11-15-Mar-13	Spring Holiday	
18-Mar-13	9	
20-Mar-13	10	
25-Mar-13	10	
27-Mar-13	11	<i>Mar 27- Last Day to Drop with a W</i>
29-Mar-13	Exam 2, Friday 5:30 - 7pm	Covering chapters 6-9
1-Apr-13	11	
3-Apr-13	12	
8-Apr-13	13	
10-Apr-13	13	
15-Apr-13	13	
17-Apr-13	14	
22-Apr-13	14	
24-Apr-13	15	
26-Apr-13	Exam 3, Friday 5:30 - 7pm	Covering chapters 10-14
29-Apr-13	15	
???-May-13	Departmental Final Exam Saturday, 8- 11 am	Covering chapters 1-15