

**PHYSICS 161 - Spring 2007**  
**University of Maryland**  
**Department of Physics**  
[www.elms.umd.edu](http://www.elms.umd.edu)  
[www.masteringphysics.com](http://www.masteringphysics.com)

**TITLE:**                    **General Physics: Mechanics & Particle Dynamics (3 Credits)**

**INSTRUCTOR:**        Prof. Emeritus G.C. Goldenbaum  
Room 0106,  
Physics Building  
email: ggoldenb4@verizon.net  
Office Hours 3pm Wednesdays or by appointment

**TEACHING ASSISTANTS:**  
Yigit Subasi Sect's. 0301, 0304, 0305  
Solomon Granor Sect's. 0302, 0306

**TEXT:**                R, D, Knight, *Physics, For Scientists & Engineers*

**LECTURES:** Rm. 1412 (Physics Bldg.), MWF 2:00 pm – 2:50 pm

| <b><u>DISCUSSION:</u></b> | <b><u>Sect.</u></b> | <b><u>Day</u></b> | <b><u>Time</u></b> | <b><u>Room</u></b> |
|---------------------------|---------------------|-------------------|--------------------|--------------------|
|                           | 0301                | Tu                | 3:00 - 3:50 pm     | PHY 4208           |
|                           | 0302                | Tu                | 4:00 - 4:50 pm     | PHY 4208           |
|                           | 0304                | Th                | 4:00 - 4:50 pm     | PHY 4220           |
|                           | 0305                | F                 | 10:00 - 10:50 pm   | PHY 3301           |
|                           | 0306                | F                 | 11:00 – 11:50 pm   | PHY 3301           |

**COURSE DESCRIPTION:** This is the first semester of a three-semester sequence in introductory physics. The subjects covered will be mechanics and particle dynamics. This is a calculus based sequence, which makes extensive use of algebra, trigonometry, elementary geometry, and calculus.

**PREREQUISITES:** Previous work in trigonometry, algebra and calculus, MATH 140.  
Co-requisite MATH 141.

**HOMEWORK:** Homework assignments will be posted on [www.masteringphysics.com](http://www.masteringphysics.com) each week. The first time you log on you will need to enter the course id which is **MPGOLDENBAUM0001** Problem solving is an essential part of physics. **It is not possible to learn the subject without working through the problems.** There is a strong correlation

between doing the homework and doing well on exams; although the grades on the homework only account for 20% of your final grade, you are unlikely to do well in the course if you do not take the homework seriously. Homework will be graded electronically.

Homework submitted to MasteringPhysics will usually be due on Monday at noon. The exams will contain problems from the homework as well as other problems.

**QUIZZES:** In order to test your progress and to encourage attendance quizzes will be given in the discussion period. The quizzes will be similar to previously submitted homework or the conceptual questions at the end of the chapter.

**EXAM DATES:**

|             |                                   |
|-------------|-----------------------------------|
| Hour exams: | Monday, Feb. 26                   |
|             | Monday, Apr 2                     |
|             | Monday, Apr 30                    |
| Final exam: | Wednesday, May16 1:30 pm -3:30 pm |

**EXTRA HELP:** I will be available after each lecture to answer questions and in my office on Wednesdays from 3 pm to 4 pm, or you may make an appointment for another time. The TAs will also have office hours. Free coaching for Physics 161 is also available from experienced volunteer physicists at the Slawsky Physics Clinic in PHYS 1208/1214 (hours to be posted on the door). You are encouraged to seek help at the first sign of difficulties.

**GRADING:** Your semester grade will be based on the following percentages:

|            |     |
|------------|-----|
| Hour exams | 45% |
| Quizzes    | 20% |
| Homework   | 20% |
| Final exam | 15% |

At the end of the semester all exam, etc. grades will be added with the above weighting and a final letter grade will be assigned depending on the distribution of total scores. In the past typical grades/scores were: 86  $\square$  A  $\square$  100, 76  $\square$  B  $<$  86, 50  $\square$  C  $<$  76, 40  $\square$  D  $<$  50 and F ( $<$  40). **This is only a guideline and not necessarily the grade distribution for this semester. Note that if you receive a grade of 100% on all the exams and do not hand in homework or come to the discussion sections you will only have a score of 60% of the maximum.**

**DISABILITY SUPPORT SERVICE:** If you have a documented disability (from DSS) and wish to discuss academic accommodations, please contact me as soon as possible.

**TIPS FOR DOING WELL:**

- 1) Read the material in the textbook before and after the material is covered in lecture.
- 2) Freely ask questions in lecture and in discussion.

- 3) Work all of the homework problems. This is how you learn physics. You are allowed and encouraged to discuss homework with anyone you wish. However, in order to learn, you should initially make a serious attempt to solve the problems by yourself.
- 4) **Seek help immediately if you do not understand the material. The material is cumulative, if you fall behind you will have difficulty catching up.** If you have difficulty with the homework, try to analyze what is causing you problems. That is the first step towards better understanding. Ask for help. Don't wait until just before exams.
- 5) Remember that you are responsible for material discussed in class, including demonstrations, even if it does not appear in the textbook. You are also responsible for material in assigned readings even if not covered in class.
- 6) Read the section of the text titled "To The Student".

### Honor Code

"The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://www.studenthonorcouncil.umd.edu/whatis.html>."