Physics 131: General Physics I  
(Fall 2005)  
MWF 8:00 – 8:50 am; Science Center 1023  
Class Web Site: http://web.grinnell.edu/courses/Phy/F05/PHY-131-01/

Instructor: Sujeev Wickramasekara  
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Office Hours: MWF 9-10 am, and by appointment.

Class Meetings:  
You will discover that our lectures have a fundamentally interactive character. Therefore, the success of the semester, to a large measure, depends on your attending class and actively participating in the discussion. In turn, this requires that you read the assigned material and attempt the suggested problems from the text before you come to class. The lectures, demonstrations and in-class discussions will aim to explicate the particularly difficult concepts and problems solving techniques from the reading and further your mastery of physics.

Recitation Sessions (TBA):  
The intent of the Recitation Sessions is to provide a meeting place for you and your classmates to get together and do physics. A student teaching assistant will be available to assist you, should you need help. These meetings will prove to be a wonderful opportunity for you to discuss anything centrally or peripherally related to the course, be it the conceptual/philosophical foundations of the subject or the technicalities of solving homework problems. Your attendance is optional—you may go to none or all of the meetings in a given week.

Textbook and Calculators:  
We will use Fundamentals of Physics, 7th Extended Edition, by David Halliday, Robert Resnick and Jearl Walker (John Wiley & Sons, Inc., 2005). You will also want a calculating device: an electronic calculator that performs standard arithmetic, trigonometric, and exponential functions is adequate.

Assignments and Exams:  
Homework: Working problems is the only way to really learn physics. I have therefore made your homework average an important part of your semester grade. I encourage you to consult your fellow students, teaching assistants and me for help in solving the homework problems. However, the solutions you turn in for credit must be your own work and simply copying the answers of your fellow students is a violation of the honor code the College. Late homework will not be accepted, unless cleared with me, preferably in advance and with a very good excuse. Your lowest homework set grade over the course of the semester will be dropped before your average homework grade is computed.

Homework assignments will be either electronic, written, or both. Solutions to written homework problems will be posted on the class web site. I am still working on setting up the online homework service and I will provide you with the instructions on how to use it sometime soon.
**Recommended Problems:** These problems are *not to be turned in*, but may be used as the basis for some exam questions. If you are able to do the homework, recommended problems, and in-class exercises, you should do well on the exams. We will be happy to discuss the solution to any of the assigned problems in the optional *Recitation Sessions* or during my office hours. Again, you are encouraged to work together to solve these problems.

**Midterm and Final Exams:** We will have two midterm exams and a cumulative final exam. The midterm exams will be one-hour long and held during the regular class period on the dates specified in the attached semester schedule. Your lowest midterm exam grade will be replaced by your final exam grade, if it is to your advantage, and averaged as described below.

**Class Participation:** Class periods will consist of a mixture of lectures, demonstrations, and interactive exercises. As mentioned above, your active participation in these activities is an integral component of this course. To aid you in becoming engaged, I will periodically provide you with *worksheets* on which you will record your solutions to the problems and insights into the topics discussed in class or from the reading assigned for the day. Turn in your worksheet at the end of the class period to receive class participation credit. In addition, there also will be occasional in-class quizzes and surveys.

**Laboratory:**
Laboratory will meet once a week over the course of the semester, as indicated on the calendar below. If you miss a lab, please make arrangements with the lab instructor to make-up the lab as soon as possible. It is the policy of the physics department that missing three or more labs constitutes an automatic failure for the course. You are expected to have read through the laboratory write-up before the lab period. Short lab reports are due at the end of the lab period. The grades you receive on these reports and your lab quizzes will be merged into a single laboratory score that will count for 15% of your final grade in the course. More details on the laboratory part of the course will be provided during the first week of lab.

**Extra-Credit Opportunities:**

**On-line Quizzes:** Designed to help you keep up with the reading assignments and let you earn extra credit at the same time, quizzes will be periodically posted on the College’s Blackboard site [http://web.grinnell.edu/courses/blackboard/](http://web.grinnell.edu/courses/blackboard/) The quizzes will be due at 7:30 am, i.e., right before class, on the dates that will be posted in the course web site and announced in class. You may use your book and any other learning tools, but you may not consult other students or tutors when answering the on-line quiz questions.

**Academic Honesty:**
You are expected to uphold a high code of honor and integrity as it relates to all work for this course. Please understand the rules outlined above for the completion of homework assignments, quizzes, and examinations within the framework of the Grinnell College handbook on Academic Honesty. I reserve the right to change these rules, if necessary, during the semester and I will inform you of any such changes as they occur.
Grading:
Problem Set Average (best 10): 600 points
Class Participation (worksheets, surveys): 100 points
Quizzes (extra-credit): 70 points

Combined, possible 770 points graded out of 700 points

Your grade for different components of the course will weigh as follows:
Homework/Class Participation 20%
Laboratory Average: 15%
Midterm exams: 40%
Final Exam: 25%

Letter grades for the course will be assigned on the basis of your weighted overall percentage as follows: $0 \leq F < 50; \ 50 \leq D < 60; \ 60 \leq C < 75; \ 75 \leq B < 90; \ 90 \leq A$.

Make-Up Work:
There will be no make-ups of missed quizzes. Make-ups for missed homework and exams can only be granted under exceptional circumstances (medical emergency, official university business, etc.). If you know of such impending circumstances, please contact me by email in advance (phone mail and personal communications tend to get written on little pieces of paper that quickly become lost in a pile of junk that I will surely accumulate in my office during the semester) so that alternate arrangements can be made. If it is impossible to notify me in advance by email, please send an email message as soon afterward as possible.

Appeals:
You have ONE week from the day on which assignments/exams are returned to appeal your grade. After 5pm on the 7th day, your grade for that assignment/exam becomes final.

Disability Accommodations:
Any student with a documented disability needing academic adjustments or accommodations must speak with me during the first two weeks of class. All discussions will remain confidential. Students with disabilities also must also meet with Dr. Joyce Stern, Associate Dean and Director of Academic Advising.

Rule 9.01(c) (Adopted from Major League Baseball):
The instructor has the authority to rule on any point not specifically covered in this document.