Physics 152
(Edition 2007)

Class Web Site: http://physics.valpo.edu/courses/p152/

Lecture Instructor:

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Class Meetings:

MWF 10:10 am – 11:05 pm, Neils Science Center Room 118

We encourage you to make every effort to attend class and have particularly little sympathy for the problems of students who skip class. If you are late to class or have to leave early, we request that you take a seat near the door so as not to disturb your classmates.

You are responsible for all the material assigned in the chapters of the text, whether or not the material is specifically covered in lecture. Please come to class prepared to discuss the assigned material from the textbook.

Our class web site will contain class policy, lecture notes, homework assignments, solution sets, previous exams with solutions, current grades, and links to web sites with materials relevant to the subjects discussed in class. Your usage of and comments on the Physics 152 web site will impact future development of this web site.

Problem Solving Sessions (Optional)

TBA (Neils Science Center Rm. 118 or 119)

These optional sessions will last roughly one hour. The purpose of the problem solving sessions is to provide a meeting place for you and your classmates to work together on the assignments for class, both those to be turned in and the optional problems. During the problem solving sessions, a Valparaiso University faculty member or teaching assistant will be available to provide hints on and help with solving any problems you have encountered in the textbook. They may also be able to provide hints on solving the homework problems. Problem Solving Sessions also present you a good opportunity to ask questions about those points from the lecture or the text on which you find yourself somewhat confused.

Office Hours: MW 3:30 – 4:30 pm or by appointment.

If you are having trouble understanding the material presented in class or the work you are to do in the laboratory, please come by and see me during office hours. If you have questions about solving specific homework problems or recommended problems, try to attend the optional Problem Solving Session or talk with your classmates. If those strategies do not succeed, again, feel free to come by and see one me during office hours. And if these hours are inconvenient for you, let me know—we'll work something out. Oh, yeah, it's always best to call ahead, just to verify that I'm in my office before you come. I'm usually around, but sometimes I get called away at the last minute.

Textbooks, Software, and Calculators:

This semester we will be using Knight's Physics. Also available to you will be the accompanying Student Solution Manual and Study Guide. This guidebook, which is optional, contains detailed solutions for many of the end-of-chapter problems that will be assigned as recommended problems. **Mastering Physics:** We will be using this website to host our on-line pre-class activities and homework. This software takes a little getting used to, but I have found that students really like it once they have figured it out. To register, follow the link our on class webpage. To enroll, use the course ID: MPMORRIS0012. If you have bought a new textbook, it will come with an insert that has your enrollment code. Otherwise, you will have to purchase enrollment rights. Use your student ID for your enrollment. You should try to enroll today, don't put it off until tomorrow! Contact me or come to my office hours if you need help. You will also need access to a computer that has the following software: Adobe Acrobat Reader and web browser software. If you do not have copies of the necessary software, links can be found on our class web site to other sites from which the software may be downloaded free of charge. Finally, you'll want a calculating device: abacuses tend to be a bit unruly in size and won't have all the functions you'd like to use. Slide rules seem to have been out of favor for 20 years now. So an electronic calculator that performs standard arithmetic, trigonometric, and exponential functions is probably your best choice.

Homework:

Working problems is important in the process of learning physics. We have therefore made your homework average an important part of your final grade (over half of your grade). You are encouraged to consult your fellow students for assistance in solving the homework problems. HOWEVER, simply copying the answers of your fellow students is a violation of the university honor code. Not to mention the fact that failing to work through the problems on your own will lead to disappointing performance on the exams. The solutions you turn in for credit must be your own work. Late homework will not be accepted, so make sure to get the assignments done on time.

Pre-class Activities: Twenty-five times during the semester, pre-class activities will be made available through the Mastering Physics website, roughly one before each normal class (see Schedule). These cover concepts in the reading assignment due for the next class, i.e. they cover material that will be discussed in class AFTER the activity has been completed. The pre-class activity will be available until 8 AM the day of class. You may use your book and notes to help you answer the questions and you may work with other students, but everyone must complete the activity for him-/herself. There are no acceptable excuses for missing a pre-class activity, but only the best twenty will be included in your grade. Pre-class activities are worth 12.5% of your final grade.

Homework: Five times during the semester assigned homework will be required. The homework assignments will be posted on Mastering Physics at the beginning of the semester. To get full credit for a homework assignment, you must receive a certain number of points, less than the total possible. For example, on Homework 1, there are 93 points available, of which you need obtain 60 to get full credit. I will compute your grade based on the percentage of points you accumulate out of the number of required points (which, remember, will be less than the number of available points) with a maximum grade of 100%. There will be no bonus points for obtaining more than the required points. There is also an optional HW0 that you can take as a tutorial for using Mastering Physics. You may work with others to complete these assignments, but you must turn in your own work. You may not copy the homework from someone else, as that is a violation of the honor code. You are encouraged to attempt the homework on your own before seeking assistance, as that will provide the greatest practice for the exams. Remember, no late homework assignments will be accepted. Your homework grade is worth 40% of your final grade.

Class Participation:

Class periods will consist of a mixture of lecture, demonstrations, and interactive exercises. You will receive credit toward your class participation grade for completing each of these activities. There also will

be surveys taken at the beginning, in the middle, and at the end of the term. Completing these surveys earns you class participation credit, too. Class participation is worth 5% of your final overall grade.

One worksheet each class: Worksheets will be provided at the beginning of each class. On these worksheets, you will record your solutions and insights into the problems we discuss in class. At the end of class, turn in your worksheet to receive class participation credit. Worksheets will consist of a variety of in-class, interactive, cooperative learning activities. Each worksheet you submit earns you 5 points.

One help session each week: Help sessions are a good place to work together with your fellow students while also having the resource of a faculty member or physics major in the room to help you when you get stuck. They provide yet another way that you can earn class participation credit, just remember to sign-in each week. Attending a help session will earn you the same credit as coming to class, although you must stay for at least an hour and work on physics while you're there—that's only fair!

Surveys: You will receive 5 points credit for each of these that you complete. These instruments allow you to communicate directly to me your suggestions for the course, feelings about the course, and background.

Class Participation Grade: I will compute your grade based on the percentage of points you accumulate out of 200 points, with a maximum grade of 100%.

Exams:

Two mid-terms and a final exam: There will be two written tests during the semester and a final during the final exam period. The written exam and the final will be closed-book and closed-notes, and will consist of multiple-choice questions, short written answers and free-response problems. The final is cumulative. Test results and answer keys will be posted on our class website. Each mid-term is worth 12.5% of your final grade. The final exam is worth 17.5% of your final grade.

Optional exam reworks (one for each midterm exam): After each exam, you will have the opportunity to turn in revised solutions to the exam, working in the comfort of your own college room or library cubicle. You're not limited to 2 or 3 hours for the rework, but will have all the time up until it's due to work on it. You're free to use whatever resources you deem necessary to solve the problems. By completing the rework, you will get back 1/3 of the difference between your actual exam grade and your score on the rework assignment as credit toward your exam grade.

Honor Code:

You are expected to uphold the Valparaiso University Honor Code as it relates to all work for this course. Please note the rules outlined above for the completion of homework assignments, quizzes, and examinations. We reserve the right to amend these rules, if necessary, during the semester. You are expected to write the university honor code in full on every exam and assignment for this class and abide by the honor code even on the electronic homework. We take the honor code very seriously. It is up to YOU, however, to make sure the honor code works! In no case are you allowed to submit solutions to problems copied electronically or otherwise from other students or any web sites.

Grading:

Class Participation	5%
Homework – warm-ups	12.5%
Homework - standardd	40%
Mid Term Exams	12.5% each
Final Exam	17.5%

The distribution of accumulated scores will assist us in assigning grades at the end of the course. We will, however, try to avoid using a curve. You can check where you stand by checking the Grading page on the class web site. The following represents the toughest possible grade assignment system we will use:

A	90 – 100
B	80 – 89
C	70 – 79
D	60 – 69
F	Below 60

If your final average is 90% or better, regardless of the distribution of scores, you will get an A- or better. The grade boundaries may, however, shift downward. **Note:** Grading of problem sets and exams will be based on what actually appears on your paper. Turning in ONLY the answers (correct or otherwise) will yield little or no credit. You must show your work with sufficient detail that the grader(s) can determine your approach, methodology, and logic!

Make-Up Work:

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, preferably by ***email,*** in advance (phone mail and personal communications tend to get written on little pieces of paper that quickly become lost in piles of junk in my office) 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:

If you feel homework or a test has been mis-graded, DO NOT WRITE on it. Write a note on a separate piece of paper and give it to me in class or office hours, or slip it in my mailbox. The assignment will be re-graded more carefully by me. Note: your grade may go up OR down based on the re-grade. That's the chance you take for me looking at it more carefully. You have ONE week from the day on which assignments/exams are returned to appeal your grade. After 5pm on the 7^{th} 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 Dr. Morris during the first two weeks of class. All discussions will remain confidential. Students with disabilities also must contact Disability Support Services.

Rule 9.01(c) (Adopted from Major League Baseball):

The instructors have the authority to rule on any point not specifically covered in the above document.