

Physics 2211K -- Fall 2008

Text: Essential University Physics, by Richard Wolfson
Physics I Laboratory Manual
Prerequisite: Math 2253

The topic areas for this course are: Mechanics, Waves, and Thermal Physics. There will be five tests given during the semester. In advance of each test, including the final exam, a page of formulas for use during the test will be provided to you. You may augment the contents of this page if you see fit. You cannot, however, bring a larger page or multiple pages to a test. Each of the (regular) tests will include both free-response and multiple-choice items; the final exam will consist of twenty-five multiple-choice items.

The test schedule for this semester is:

Test 1	Chapters 2 & 3	Monday, September 8
Test 2	Chapters 4 & 5	Wednesday, September 24
Test 3	Chapters 6 – 9	Wednesday, October 15
Test 4	Chapters 10 - 12	Wednesday, November 5
Test 5	Chapters 13, 14, 16, & 17	Monday, December 1

The final exam will be scheduled later by the Registrar. Do not make any plans that might conflict with the final exam.

Plan to take the tests as scheduled, as no make-up tests will be given. If one test is missed a replacement score will be created from the corresponding problems on the final exam. [If the absence was *unavoidable* and the reasons for it are *verifiable*, then the reasons must be submitted *in writing*, along with appropriate documentation, upon your return to class.] If more than one test is missed without such reasons (or if they are not provided) a grade of zero will be assigned for each missed test after the first. [The replacement procedure described is applied for each *excused* absence.] If *at least* three tests are taken and there have been *no un-excused* test absences, the lowest test score will be compared to a score produced from the corresponding material on the final exam and the higher of the two grades will be used as the score for that test. There are *no exemptions* from the final exam.

The point credit distribution for the class is as follows:

5 tests @ 10 points each	50 points
Homework	10 points
Laboratory	15 points
Final Exam	25 points

Note that passing the lab is a requirement for passing the course. In this case, “passing the lab” means attaining a score of *at least* 8.0 of the 15 points available.

Homework problems will be assigned for each chapter covered. The tests and the final exam for this course will be primarily problem based instruments, though each will also include conceptual items. The homework problems are intended to provide practice for the tests. The assigned homework sets represent a minimum number of problems for the material covered; if you find particular areas to be difficult you should find similar problems to those assigned and do those also.

Collection of homework will not be announced in advance but will occur frequently. No problems, however, will be collected during the last class meeting prior to a test. The problem to be turned in will be due as soon as it is announced. *Problems cannot be turned in at any other time.* The combined total of tests and homework cannot exceed 60 points.

The last day to withdraw from this course with a grade of ‘W’ is Tuesday, October 7.

Any student who believes that he or she has a disability that produces a need for special accommodations, and who has not already done so, should contact the ATTIC to determine if he or she is eligible for special assistance. Any student who has already been determined by the ATTIC to require special assistance should notify the appropriate course instructors as soon as possible. No special accommodations can be made without approval from the disabilities coordinator at the ATTIC.

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Course Learning Outcomes

Students completing this course will be able to:

- (1) explain and interpret physical situations as stated in a word problem using calculus as a tool.
- (2) identify the physical laws appropriate to the physical situation at hand
- (3) predict the behavior of representative physical systems using calculus and physical laws as a tool.
- (4) interpret the outcome of a physical system using calculus as a tool.
- (5) use various types of data collection tools for the experimental investigation of physical laws
- (6) represent physical systems in multiple representations: i.e., mathematically, pictorially, graphically, etc.

Additional Notes

In reference to the note on the front page regarding a limitation of the total test and homework points to 60: more than 10 homework problems will be collected. [The extra problems *are* the make-up opportunity; there will not be any other opportunity to *make-up* homework.] Individual tests will actually contain slightly over the nominal ten points. [Generally, that will be around ½ point.]

There are no points associated with the recitation. Recitation will be used to reinforce the lectures. The recitation meetings will mainly consist of additional examples. There will, of course, also be the opportunity to ask questions in a smaller group setting.

Solutions to some of the assigned homework problems are posted at www.spsu.edu/science/physics/thackston. You should not use these solutions, or those contained in the Student Solutions Manual, until you have made serious efforts to solve the problems. The benefit to you of seeing solutions is not nearly so large as the benefit from performing the solutions.

A copy of this syllabus and the formula pages will also appear at this website. All of those files are “pdf” files.

If you have already taken either PHYS 1111K or PHYS 2211K and passed the lab, and if you took the course at SPSU within the past two years, you may re-use your previous lab score. In order to do this you need to see Ms. Cosme (in the Biology, Chemistry, & Physics office). Fill out and turn in a request form. You will need to supply information about when and with whom you took the lab. Note that even if you are re-using a lab score, you still must be signed up for a lab section.