



VII. Homework

Doing homework is the most important factor in doing well in this class. There will be approximately one homework set assigned per week, usually on Fridays, and is usually due in the following Friday before class. However, you should work on your homework as early as possible before a deadline so that you can have time to ask for help during classes or in my office hours if you encounter difficulties in solving these problems. Late homework will not be accepted.

To emphasize the importance of doing homework, homework grade will count towards 35% of the total grade of the course, excluding the assignment with the lowest grade.

Homework questions will not be assigned from questions in the textbook, due to the fact that many solutions can be found easily online. Instead, questions from will be selected from other sources, including past PhD comprehensive exams. You need to show steps of how you used the method leading to that answer. I will grade the homework based on the method used, as well as the answer. Therefore, you should submit your partially finished work. This will help you getting partial credit, and let me identify your difficulties. Also, your work should be clean and clear enough for me to understand.

While it is good for you to have discussion with classmates or search the Internet for additional information, your submitted homework should be of your own, but not a direct copy from another source. If you finish a question with the help of another person, a solution book, or a solution you found in the Internet or passed on to you from another student, you need to cite that at the end of your answer for that question. There is no deduction of points for using help that you cited if it is not a direct copy. However there can be deduction up to the maximum points of that homework set if you used help but failed to cite. Also, you should use help only to enable you to do a problem yourselves. Keep in mind that you will

help you getting partial credit.

IX. Project

Since this course is mainly for graduate students, who are supposed to do physics research, part (10 %) of the total grade will be given for doing a project. The final product of the project for this semester will be a 10 minute talk and a presentation file for the talk. The presentation file should be short enough so that it can be presented in about 10 minutes. Then there will be a few more minutes for questions. There should also be a list of references in the file, although you don't need to read through it. Your talk should cover at least the following aspects: 1. What are the main conclusions of this paper and do you find them interesting or important (and why)? 2. What are the main mathematical/numerical/experimental methods used in this paper and do you believe the validity of the results (and why -- you don't need to repeat the presentation of the paper in details and you don't have to understand everything in the paper but you need to show your effort trying to understand it)? 3. What research can you suggest that is directly related to the main points of this paper that hasn't been done yet (you will need to perform a search to see if your suggested research, or similar ideas, has been done by other people)?

Although you may choose from any physics journal, I would strongly recommend searching a paper in journals aiming at the level of graduate students, e.g. the American Journal of Physics (<http://scitation.aip.org/ajp/> which can be accessed through the GInetwork at the Elvey building) or the European journal of physics (which can be accessed through the UAF network linked from <http://library.uaf.edu/>). Topic of the paper you choose has to be related to one or more of the topics covered in this semester (e.g., Maxwell equations, waves, radiation, relativity,... etc). You should be able to find many papers using the search function.

_____ : You will need to work with me to finalize your choice of a paper by Monday, February 15, by submitting a copy (or a link) of the paper on Blackboard. A first draft of the presentation file (with enough details) is due on Monday, April 12 so that I can give you

of them would decrease your total grade, it will be replaced by the average grade of both exams. The course will be graded approximately according to the following scale:

> 90 %	A
83 % -- 90 %	A-
76 % -- 83 %	B+
70 % -- 76 %	B
63 % -- 70 %	B-
56 % -- 63 %	C+
50 % -- 56 %	C
43 % -- 50 %	C-
36 % -- 43 %	D+
30 % -- 36 %	D
23 % -- 30 %	D-
< 23 %	F

Note that the passing grade for graduate students is B. Therefore, in order to pass this course, you should get most of the points in homework/project/participation, and to get enough points in exams.

XI. Getting Help

My online office hours will be announced later. Canceled office hours will be announced in class or by email. If you need to see me beside these office hours, please set up a time by appointment. These are hours set aside especially to help you - do not feel like you are imposing or cheating by coming in. If you have problems that need immediate attention, please send me an e-mail or give me a call at my office phone number.

I have set up a home page for the

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				file due
5/3	M		This is absolutely the last day for submitting any of your work (by 5 PM) to me, as well as discussing with me about your grades.	
5/5	W		Final grades will be submitted by noon. They will also be posted on Blackboard.	

STUDENT PROTECTIONS AND SERVICES STATEMENT:

Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans' services, rural student services, etc. to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. For more information on your rights as a student and the resources available to you to resolve problems, please go the following site: www.uaf.edu/handbook/.

UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: <https://alaska.edu/nondiscrimination/>.

Your instructor follows the University of Alaska Fairbanks Incomplete Grade Policy: “The letter “I” (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student’s control, such as sickness, has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an “I” grade.”

Effective communication: Students who have difficulties with oral presentations and/or writing are strongly encouraged to get help from the UAF Department of Communication’s Speaking Center (907-474-5470, speak@uaf.edu) and the UAF English’s Department’s Writing Center (907-474-5314, Gruening 8th floor), and/or CTC’s Learning Center (604 Barnette Street, 907-455- 2860).