

PHYSICS 109

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Office Hours: 10-11 on Tuesday and Thursday, or by appointment.

Text: *The Essential Cosmic perspective, Seventh Edition, by Bennett, Donahue, Schneider, and Voit.* You also need access to the **Mastering Astronomy web site** and the **Starry Night College planetarium software**.

Description: Physics 109 is an intensive introductory course in astronomy. Topics covered include the solar system, stars, galaxies and the universe as a whole. Elementary physics and mathematics are used to obtain both a qualitative and a quantitative understanding of astronomy.

Online Homework: To encourage you to keep up with the reading assignments online homework assignments will be given before many classes. **You must have finished the assignment one-half hour before class begins.** Failure to do so will result in a grade of zero for that assignment. You are allowed to use the textbook and your class notes to help you answer the questions and you may ask the instructor about the questions, **but you may not get help from any other person or source.** The homework assignments will be accessed through the web site at www.MasteringAstronomy.com. **You will need to register for this web site.** If you purchased a new copy of the text from the campus bookstore then this will be free. If you purchased a used copy then you can go online and pay for the registration.

Extra Credit Quizzes: Eight extra credit quizzes with five questions on each will be given during the semester. Each quiz and the topics it will be on will be announced ahead of time both in class and on the sakai website for the class. The way the extra credit will work is that up to a certain limit incorrect questions on an exam can be replaced by correct questions on a quiz with one quiz question being used to replace one exam question. For each in-class exam the limit is seven questions and for the final exam the limit is nine questions. So if you miss seven or more questions on say the first exam and then get at least seven questions right on the quizzes that you take, then seven correct quiz questions will replace seven exam questions that you missed. To have a replacement you must answer a quiz question correctly. Also, no matter how many quiz questions you answer correctly, you cannot replace more than seven incorrect questions on any exam. Further, if you say get a score of 100 on all of the exams then you will get no extra credit from correct quiz questions since all of your exam questions have been answered correctly.

Exams: There will be three in-class exams during the semester and a final exam. The in-class exams will be on **Friday February 3, Monday February 27, and Wednesday March 29.** The final exam will be on **Monday May 1 at 9am.** Calculators may not be used for the exams.

Grading: The online homework assignments count 12% towards your final grade with the lowest three scores dropped. Each in-class exam counts 16%. The final exam counts 20%. The lab counts 20% of your final grade. **However, if you receive a final lab grade which, out of a total of 20 points, is less than 12 points you will automatically fail the course.**

Labs: Labs will be held in Room 105, Olin Physical Laboratory. **All students must bring their laptop computers to every lab.** Failure to do so may result in you being sent home to get it.

Lab Manual: The lab manual is available online at the web site given above. **You must print out each of the possible labs that you will do before coming to lab.** If you fail to do so and need to print out a lab when you get there **a fee of \$5.00 will be charged.**

You cannot change your lab section without written permission from me. You may only attend the lab section that you are assigned to.

There will be some outdoor labs and when it is cold outside you should dress **much more warmly** for them than you normally would to travel to and from class. Hats and gloves are strongly recommended. The outdoor labs have priority over the indoor labs so **be prepared to go outside.**

You are expected to attend and complete all twelve of the labs. Your lowest lab grade will be dropped. You are further expected to complete and hand in the work for each lab at the end of that lab session. **If you finish the work at home and hand it in late you will get a zero for that lab.**

Absences: You will receive a grade of **zero** for any exam, quiz, homework assignment, or lab for which you do not have an excused absence. Further it is your responsibility to contact me immediately if you miss an exam. **If you miss an exam for some trivial reason such as oversleeping or your car won't start then you must, regardless of your schedule that day, take the exam on the day you missed it. Failure to do so will result in a grade of zero.** Further, if you do not make up the exam before it is gone over in class you will be required to take an oral exam as a make-up. If you miss a homework assignment or a lab because you forgot about it you should contact me immediately or your grade will be zero. Forgetting homework assignments or labs more than once will result in grades of zero for those assignments or labs.

If you have an excused absence for a lab you must get written permission from me in order to make it up. The TA's do not have the authority to excuse absences! Further you must then go to a lab that is doing the same lab you missed and give the note to the TA. It is your responsibility to do so as soon as possible. **Failure to do so will result in a grade of zero for the lab you missed.**

Examples of **acceptable excuses** include illness, family or other emergency, and participation in certain school functions. Examples of **unacceptable excuses** include studying for an exam, dinner with a family member or a friend, **leaving early for Fall Break**, and **any fraternity or sorority function.** If you have already booked a plane ticket (or made some other arrangement) which requires you to leave early for Fall Break or Thanksgiving then you must tell me right away and show proof that this was done before the class began. If you book a ticket (or make some other arrangement) requiring you to leave early for fall break after the class begins then you will simply have to either make other arrangements or take a zero for the missed lab. Note that there will be no lab on the Tuesday before the Thanksgiving vacation begins.

As soon as you know that you will miss an exam, quiz, or lab you should send me an email message or call 336-758-4992 and let me know what you are going to miss and why. Whenever possible the absence should be excused ahead of time. You may be requested to provide proof of illness, etc.

Tips on How to Study For This Course

In this course there is a large amount of material that you are expected to assimilate. The two things that will help you the most are to **attend all of the classes** and **keep up with the reading**. It is usually difficult to understand everything in a science course the first time it is presented. Therefore it is important to be exposed to the material a number of times in different ways. When studying it is usually best to **avoid highlighting** parts of the text. This is because science texts tend to be very densely written and you will miss important information. Instead it is best to **take notes** on what you read. This slows you down and gives you a chance to ask yourself whether you really understand the material you are reading.