

## **Physics 212** **Fall Term 2007**

Section 150: 12:30 – 1:45, Tuesdays and Thursdays  
Section 250: 2:00 – 3:15, Tuesdays and Thursdays  
211 Brace Hall

**Lecturer:** Gregory Snow, 109 Ferguson Hall, Office phone: 472-6279  
E-mail: gsnow@unlhep.unl.edu

**Course Web Site:** On the university's Blackboard system, the course web site is entitled "GENERAL PHYSICS II PHYS212 SEC 150 FALL 2007". Make sure your E-mail address is current on the Blackboard system, since announcements will be sent to all registered students from time to time. Always access the online preclass problems and the Mastering Physics online homework problems (described below) through the course web site so that you see any announcements posted on the course web site.

**Office Hours:**

Tuesday 4:00 - 6:00 p.m., or by appointment.

**Textbook:**

University Physics, 11th Edition, Volume II (which starts with Chapter 21)  
Authors: Young and Freedman

**Exams:**

There will be two 1.5-hour midterm exams and a two-hour **comprehensive** final. The exams will be given online in the Testing Center, 127 Burnett Hall, and you will log into the university's EDU system (the same system used for the lecture preclass problems) to take the exams. You will need an electronic calculator during the exams, and calculators cannot be shared. There are no make-up or alternate exams outside the dates listed below. The exams dates and the Testing Center opening hours are listed in the table below. More details about the exams will be provided as they approach.

	<b>Exam Dates</b>	<b>Testing Center Hours</b>
<b>Exam I</b>	Thurs, Fri, Sun, Mon, Oct. 4,5,7,8 (till 5 pm)	Monday – Thursday 9am – 9pm
<b>Exam II</b>	Thurs, Fri, Sun, Mon, Nov. 15,16,18,19 (till 5 pm)	Friday 9am – 5pm
<b>Final Exam</b>	Monday, Tuesday, Wednesday, Dec. 17, 18, 19	Sunday 1pm – 9pm

**Lectures:**

Before each lecture, there will be a simple online preclass problem for you to work using the university's EDU system. Instructions for the preclass problems are given on a separate handout. During the lectures, you will need a "clicker" to respond to concept questions via the Personal Response System (PRS). If you don't already have a registered clicker, you may purchase one at the bookstore and register it either at the bookstore or via your my.unl.edu web site.

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**Homework and Recitations:**

Weekly homework assignments will be done online using Mastering Physics, for which you must purchase an access code. Mastering Physics “Student Access Kits” come with new textbooks, they can be purchased separately at the bookstore, or they can be purchased through the Mastering Physics website (<http://www.MasteringPhysics.com>) which is reachable via the course website on Blackboard under the “Assignments” tab. To register for this course, use the class code:

UNLPHYS212SNOWFALL2007

Unless otherwise specified, homework assignments will be posted on Tuesday of each week and will be due by midnight Tuesday of the next week. Follow the course web site for any changes to the homework schedule.

Recitations are on Thursday or Friday of each week. In the recitations, you will have the opportunity to ask questions about the Mastering Physics homework assignment due the next week. There will also be a small number of quizzes given in recitation as well as problems you will solve working in a small group. Your weekly homework, quiz, and group problem performance will result in a Recitation Score that will constitute 15% of your semester grade.

**Course Grading:**

Course grades will be determined according to the following weighting:

<b>30%</b>	Final Exam
<b>20%</b>	Exam I
<b>20%</b>	Exam II
<b>15%</b>	Recitation Score
<b>10%</b>	Online preclass problems (see separate info sheet)
<b>5%</b>	Participation in PRS response questions during lecture

**Students with Disabilities:**

Students with disabilities are encouraged to contact the lecturer Gregory Snow for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.

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The following table lists the lecture dates, tentative lecture topics, and corresponding textbook chapters for the course. You will experience greater success in the course if you read the textbook chapters **BEFORE** coming to lecture.

<b>Lecture Date</b>	<b>Lecture Topic</b>	<b>Textbook Chapter</b>
August 28	Coulomb's Law	Chapter 21
August 30	Coulomb's Law	Chapter 21
September 4	Electric Fields	Chapter 21
September 6	Electric Fields	Chapter 21
September 11	Gauss' Law	Chapter 22
September 13	Gauss' Law	Chapter 22
September 18	Electric Potential	Chapter 23
September 20	Electric Potential	Chapter 23
September 25	Capacitors	Chapter 24
September 27	Current, Resistance	Chapter 25
October 2	DC Circuits	Chapter 26
<b>October 4,5,7,8</b>	<b>No lecture</b>	<b>Exam I (Chapters 21-24)</b>
October 9	DC Circuits	Chapter 26
October 11	Magnetic Fields	Chapter 27
October 16	Magnetic Fields	Chapter 27
October 18	Biot-Savart law	Chapter 28
<b>October 23</b>	<b>No lecture</b>	<b>Fall Break</b>
October 25	Ampere's Law	Chapter 28
October 30	Faraday's Law	Chapter 29
November 1	Faraday's law	Chapter 29
November 6	Inductance	Chapter 30
November 8	RL Circuits	Chapter 30
November 13	Review for Exam II	
<b>November 15,16,18,19</b>	<b>No lecture</b>	<b>Exam II (Chapters 25-30)</b>
November 20	LC, RLC Circuits	Chapter 30
<b>November 22</b>	<b>No lecture</b>	<b>Thanksgiving</b>
November 27	AC Circuits	Chapter 31
November 29	Maxwell's Equations, EM Waves	Chapter 32
December 4	Reflection, Refraction	Chapter 33
December 6	Geometric Optics	Chapter 34
Dec. 11 (Dead week)	Geometric Optics	Chapter 34
Dec. 13 (Dead week)	To be determined	
<b>December 17,18,19</b>		<b>Final Exam</b>

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**Suggested weekly student activity plan for Physics 212**

Below is a sample weekly schedule that will help you minimize the time you spend on this course and maximize your performance on the exams. The key ingredient is keeping up with things as they need to happen – textbook reading and working assignments. Variations on this timetable are of course possible, but sticking to a regular schedule *with a weekly check list* is the key to success in this course.

**Sunday or Monday**

1. Work the preclass question for Tuesday's lecture on the EDU system.
2. Put in some serious time on the Mastering Physics homework set (due Tuesday at midnight) with the intention of completing it. Either complete the assignment or prepare questions about problems that are giving you difficulty.

**Tuesday**

1. Go to lecture.
2. Seek last-minute Mastering Physics homework help in Prof. Snow's office hours if needed.
3. Make sure the Mastering Physics homework assignment is complete and submitted by midnight.

**Wednesday**

1. Reread the chapter(s) that are being covered in this week's lectures.
2. Work the preclass question for Thursday's lecture on the EDU system.
3. Take a first look at the Mastering Physics homework set (due the following Tuesday at midnight).

**Thursday**

1. Go to lecture.
2. Take a more serious look at the Mastering Physics homework set (due the following Tuesday at midnight). While doing so, decide which problems are likely to be easy to complete and which problems are likely to give you difficulties.
3. Go to recitation if your recitation is Thursday afternoon (see next item).

**Friday**

1. Go to recitation. In recitation, ask questions about the Mastering Physics homework problems that you might give you difficulties.

**Saturday or Sunday**

1. Read the chapter(s) that will be covered in the upcoming week's lectures.