

PHYSICS 214: JULY 2009

COURSE SYLLABUS

- Lecture:** Monday through Friday, 10:00-11:50 Lewis Hall, Room 101
- Instructor:** Dr. Tibor Torma
- Office:** Room 208 Lewis Hall, Email: kakukk@phy.olemiss.edu
- Office Hours:** Every day 12:00, or by appointment (208 Lewis Hall)
- Textbook:** Physics, 6th edition, by Douglas C. Giancoli (Chapters 16 through 31).
- Laboratory:** Students **must** take the **Lab Phys 224** along with this course, unless they have already passed it.

Grading scale and evaluation:

- Grades will be based on homework, quizzes, tests, and the final examination:
Homework ----- 20%
Quizzes ----- 15% (One dropped quiz.)
Two tests ----- 30% (#1=15%, #2=15%)
Final exam ----- 35%
- Grading Scale: 100% > A > 90% > B > 80% > C > 70% > D > 60% > F.
- No excuses are accepted for missed quizzes, not even in medical situations!
(Do not plan on missing any class because it is almost impossible to catch up.)

Tests:

Test #1	Chapters 16, 17, 18, 19	Monday, July 6.
Test #2	Chapters 20, 21, 22, 30, 31	Tuesday, July 14.
Final:	Comprehensive	Thursday, July 23 at 12:00 noon.

Homework Rules:

1. Home works are assigned every class period and are due in two days.
2. Homework paper should be 8.5 x 11 inches with no torn edges, stapled.
3. Show all your work; **the answer alone is not worth any credit.**
4. Homework problems must include **enough English to be understandable.**
5. Homework answers should have units and a reasonable rounding.
6. **Circle the final answers that you want to be graded.**

Reading assignments and quizzes:

Note that keeping up with the material is *the responsibility of the student*. Some parts of the textbook will not be covered in class due to shortness of time; these are still part of the class material and should be learned; they are part of tested material. Do not expect to learn everything in class!

In the beginning of each class there will be a set of two quizzes. Quizzes start promptly, and anyone whose quizzes are not in the collection box at 8:10 will miss the credit for the quiz.

The first quiz is on the “Skim before” reading assignment. These two questions are on the basic understanding of the reading material, before it is covered in class. Read through the assigned material but skip derivations and only skim examples. Do not memorize formulas for this part, but learn basic definitions and main physics laws.

The second quiz is on the “Read after” reading material, mostly (but not always completely!) covered in the previous class. You should read carefully, with pencil in hand, and follow all the calculations. When “Summary” is part of the assignment, memorize the summary. (You can use your own words in the quizzes/tests, but they should have the same meaning as the summary’s!) These two quiz questions involve details, including basic formulas, but will not require calculations.

In each quiz question you will be given how many lines, words or sentences your answer should be. Do not overstep this request, because the part of your answer that is longer than asked will be simply deleted!

Date	Reading assignment			Laboratory	
	Skim before	Discussion in class	Read after	Lab	Lab needs chapter
June 25 Thu	-	16/1-6	16/1-6	Introduction	-
June 26 Fri	16/7-12, 17/1-5	16/7-10, 17/1-5	16/7-10+Sum, 17/1-5	Electrostatics	16/1-6
June 29 Mon	17/7-11, 18/1-4	17/7-9, 18/1-4	17/7-9+Sum, 18/1-4	Electric fields	16/7-10
June 30 Tue	18/5-10, 19/1-2	18/5-7, 19/1-2	18/5-7+Sum, 19/1-2	DMM	17, 18/1-3
July 1 Wed	19/3-8	19/3-8	19/3, 19/5-8+Sum	Ohm's law	18
July 2 Thu	20/1-4	20/1-4	-	Series/Parallel	-
July 6 Mon	-	Test 1 (16 -19)	20/1-4	-	19
July 7 Tue	20/5-7, 20/9-12	20/5-7,9,12	20/5-7,9,12+Sum	Kirchhoff	19
July 8 Wed	21/1-8	21/1-7	21/1-7+Sum	Earth's B	20
July 9 Thu	22/1-7	22/1-4, Exponentials	22/1-4+Sum	Current Balance	21
July 10 Fri	30/1-13	30/1-13	30/1-13+Sum	-	-
July 13 Mon	31/1-9	31/1-5, 23/1-5	31/1-5+Sum	-	-
July 14 Tue	-	Test 2 (20-22, 30-31)	23/1-5	Expo and scopes	Exponentials
July 15 Wed	23/6-10, 24/1-3	23/6-8, 24/1, 24/3	23/6-8+Sum, 24/1, 24/3	Circuits EXAM	-
July 16 Thu	24/4-12	24/4-8, 24/10	24/4-8, 24/10+Sum	Geo optics	23
July 17 Fri	25/1-5	25/1-5	25/1-5	Thin lenses	23
July 20 Mon	25/6-12	25/6-9	25/6-9+Sum	Eye	25
July 21 Tue	27/1-13	27/1-13	27/1-13+Sum	Wave optics	24
July 22 Wed	-	Review and makeup	-	Spectroscopy	27
July 23 Thu	-	Final test @ 12-2	-	-	-

Common Courtesy Guidelines:

For the benefit of your fellow students and your instructor, you are expected to practice common courtesy with regard to all course interactions. For example:

- Show up for class on time.
- Do not leave class early, and do not rustle papers in preparation to leave before class is dismissed.
- Be attentive in class; stay awake, do not read newspapers, etc.
- If you must be late or leave early on any particular day, please inform your instructor in advance.
- Absence may jeopardize your standing because you are responsible for any in-class activities. Students who do not practice common courtesy should not expect a good standing because their in-class activity is in question.

Course objectives:

1. Introduce students to physics.
2. Expand the understanding of the ideas and results of General Physics.
3. Develop an understanding of the current basis of broad knowledge in Physics.
4. Expand knowledge of applications of physics in Medicine, Biology, and Pharmaceutical sciences.
5. Enhance the critical thinking, analytical reasoning, and problem solving skills.

Learning objectives:

In this course, we introduce students to the basics of physics.

The learning outcomes for students:

1. Understand the basic principles of Physics *including* electric and magnetic phenomena, optics, as well as the rudiments of modern physics.
2. Understand the physical basis of numerous contemporary applications of General Physics in Biology, Medicine, and other Sciences.
3. Learners will build on a critical thinking, analytical reasoning, and problem solving skills.
4. Students will know how to use interactive methods and Internet for their independent learning on “General Physics”.