

## Physics 213 General Physics II

Lecture: TR 9:30-10:20 AM, 11:00-11:50 AM, CP 153

Credit Hours: 5 hours, including Lab

Prerequisites: PHY 211 or equivalent

Lecturer: Prof. Gang Cao

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Office Hours: TR: 2:00-3:00 PM

### Course Description

Physics 213 is the second course of a two-semester sequence in introductory physics. This course is intended primarily for students who will require some competence in physics in their subsequent work. The main subjects covered during this semester will be electricity, magnetism, optics, and modern physics. The required textbook for this course is College Physics, Seventh Edition Serway/Faughn, which was used last semester in PHY 211.

### Goals

Physics is the master science. The concepts and principles of physics are drawn upon by such other sciences as chemistry, biology, and geology in their exploration of narrower aspects of the universe around us. The same concepts and principles constitute the foundations of engineering and have made possible the technologically advanced world of today. Our goal is to help you learn some fundamentals of physics and see the world through eyes that know physics. It requires your commitment, diligence and persistence to reach this goal.

### Examinations and Grading

The course grade will be determined as follows:

	MAX. TOTAL
Homework	200
Laboratory	100
Quizzes	100
One-Hour Exams (3x100)	300
Final Exam	200
Total Points	900

Letter grades A, B, C, D and E will be assigned based on your total score. Final grade distributions will depend on how well you have learned the materials. There are no

predetermined cutoffs, and it is not impossible for everyone to have an acceptable grade so long as he or she makes serious efforts.

Homework: The homework grade will be determined based on your homework score. Homework will be assigned in the Lecture (see assignment schedule). It will be collected in the beginning of the next Recitation. Your recitation instructor will grade it. Each assignment is graded for a maximum of 5 points. You will receive 3 points if you complete and turn in your homework in time. You will receive up to another 2 points based on one problem that is chosen at random and graded in detail.

Your recitation instructor will review the assigned homework problems and underlying concepts related to the homework in recitations after the homework is submitted. 25% of problems of each exam will come from assigned homework problems.

Quizzes: There will be a number of 10-minute quizzes given in recitations at random. These quizzes will cover underlying concepts learned in lectures. They will be graded by your recitation instructor.

One-hour Exams: There will be three One-hour Exams for this course, each worth 100 points. These exams will cover a limited, specified number of chapters. A formula sheet will be provided for the One-hour Exams.

Final Exam: The two-hour Final Exam, worth 200 points, will be comprehensive, covering all material learned in this course. A formula sheet will be allowed for the Final Exam. Calculators will be permitted.

If you have a question about the grading of an Exam and homework, you are welcome to request a re-grade. *If action needs to be taken on an Exam, please present in writing an explanation within one week of the day the graded Exams have been returned to the class.* Lab Report queries should be handled through your Lab Instructor.

An excused absence always requires a written request. It must be provided to the Recitation Instructor at least one week in advance, except for unexpected emergencies. If you miss the Final Exam or two or more one-hour Exams with excused absences, you will automatically receive an incomplete ("I" grade). You would have to complete the course in a subsequent semester. If you miss any Exam without an excused absence, you will receive a 0 for the Exam. If you miss two or more one-hour Exams or Final Exam without an excused absence you will automatically fail the course ("E" grade). Every test will be photocopied.

### **Collaboration**

You are encouraged to collaborate on homework assignments but you should solve your homework assignments on your own after having discussed the problems with classmates.

## **University Studies**

PHY 213 belongs to the University Studies Program. The writing component of the University Studies will be satisfied through the clear, coherent, and orderly presentation of the physics principles involved in your solutions to problems on homework and Exams, using not only equations and numbers, but also words and diagrams. In addition, answers must include correct units.

## **Course Evaluations**

Course evaluations are an important and mandatory component of our department's instructional management system. The on-line course evaluation system was developed to minimize the loss of classroom time and allow each student ample time to evaluate each component of the course and the associated instructor, providing meaningful numeric scores and detailed commentary. To access the system during this window, simply go the Department of Physics Web page at [www.pa.uky.edu](http://www.pa.uky.edu) and click on the link for Course Evaluations then follow the instructions.