

# PHY222 General Physics Laboratory II (Spring 2011)

**Introduction** This course provides hands on intuition about general physics covered in the PHY212 lecture course. Sometimes the experiments are ahead of the lecture, or go beyond the scope of the lecture. Therefore, students are urged to read the theory part of the experimental manual and consult with the textbook if necessary. Since the laboratory time is limited, it is crucial that the students come prepared for the lab by reading the provided material. Pre-lab exercises based on the reading material should be done at home and prepared independently. The prelab exercises will be collected by the instructor at the beginning of each laboratory session and graded (2 points).

The reports must be completed and submitted during the class. Report sheets are included in the experimental manual. Students should work together on collecting the data and discuss the results with each other to reach a consensus. All students should answer all the questions in their own writing and submit their individual reports along with one set of printouts, but please be aware that only one report of each group will be graded so that consensus must be reached with colleagues. The individual reports make it possible for everyone to keep a copy of the report. Sometimes a group may find it difficult to complete all the measurements and answer all the questions. It is more important to present all the completed measurements clearly rather than to complete all the measurements. **When making graphs it is important to label axes and indicate units.**

*Students must sign in at each lab.* While it is highly recommended that you always attend your assigned section, labs can for very compelling reasons be made up in the same week at another regular section, i.e. on Monday through Friday, see times below. It is recommended to consult with the instructor of the other section prior to the make-up lab. Be certain to put not just your name but the name and section of your regular instructor. If for religious observant reasons you cannot attend at your regularly scheduled time it is your responsibility to do the lab at a different time during the week. In some cases, such as an authorized temporary leave or real sickness, not just hung over from a party, an opportunity for the makeup of one or two labs may be possible after the final exam.

As this is a laboratory course, participation in the labs is critical. No lab grade is dropped. Typically missing two or more labs results in a F. Grade will be based on 8 points for each lab report, 2 points for each prelab for a total of 110 possible points for the 11 labs, plus a 10 point overall participation and in the lab performance grade, plus 20 points for midterm and 20 points for final resulting in a total possible 160 points. Both the midterm and final are carried out individually so be sure each of you understands everything and can do all aspects of each lab. Letters grades will be assigned based on a scaling of the earned points, e.g. typically >90% is an A.

**Course Fee** To support the laboratory and related lecture demonstrations in the co-requisite course, PHY212, you have been charged a course fee of \$50. This fee helps pay for (i) laboratory manuals and other handouts, (ii) supplies, small pieces of apparatus, and maintenance for the laboratory equipment, (iii) supplies and small pieces of apparatus for lecture demonstrations, and (iv) undergraduate students working in the student and demonstration laboratories.

# PHY222 Lab Schedule (Spring 2011)

Week of:

Experiment:

Number Title

**Pre-lab assignments should be done the first week of school in preparation for the laboratories that start the second week of school**

Jan 18- 25 Paper copies of the first lab are available in the Physics Clinic (**Room 104 South**) Physics Bldg. Included are pre-lab assignments which are due at the beginning of the first lab.

Jan 24- 26 I Electric Charges

Jan 31- Feb 2 II Electrical Potential and Electrostatic Fields

Feb 7 - 9 III Ohm's Law

Feb 14 - 16 IV DC Circuits

Feb 21 - 23 V RC Circuits

Feb 28 - Mar 2 Individual 35 minute lab midterm exam

Mar 7 - 9 VI Gauss's Law and Electrostatic Fields (cont'd)

**Mid Semester Break Mar 13 - 20**

Mar 21-23 VII Magnetic Fields

Mar 28 - 30 VIII Motion of Electrons in Electric and Magnetic Fields

Apr 4 - 6 IX Ampere's Law

Apr 11 - 13 X Faraday's Law

Apr 18- 20 XI Interference and Diffraction of Light

Apr 25 - 27 Individual 35 minute lab final exam

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Lab sessions are at the following times:

M 8:25-10:25AM 10:35AM-12:35PM 12:45-2:45PM 3:45-5:45PM

M 6:00-8:00PM

T 7:00-9:00PM

W 10:35AM-12:35PM 12:45-2:45PM 3:45-5:45PM 6:00-8:00PM

Because most labs are full and to facilitate the return of graded lab reports and tests, it is important to go as much as possible to your assigned session. If you do go to an unassigned session it is your responsibility to track down your returned lab. Please keep all returned labs until after grades are finalized at the end of the semester.

# PHY222 General Physics Laboratory II (Fall 2010)

## Lab Supervisor:



**Prof. Kenneth Foster**

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Office hours: by appointment.

## Undergraduate Physics Office



**Secretary: Diane Sanderson**

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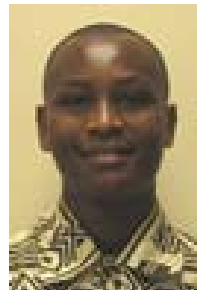
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## Lab Instructors:



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## **Academic Integrity**

The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The work reported in a laboratory must be your own. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort.

For more information and the complete policy, see <http://academicintegrity.syr.edu>

## **Disability Services**

Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498 and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance."

For more information about services and policy, see Office of Disability Services.