

PHY221 General Physics Laboratory I

(Spring 2008)

Introduction

The purpose of this course is to provide students with intuition about elementary subjects of general physics and to develop some practical laboratory skills. The relevant subjects are covered in the PHY211 lecture course. It may happen that the experiments will be done ahead of the lecture, or go beyond the scope of the lecture. Please consult with your PHY211 textbook if necessary.

Lab worksheets to guide you will be provided when you come to the class. You will work in a team of two or three people. Each person will submit a lab report at the end of the lab meeting. Even though the whole team should contribute to the team discussions, they will have different primary responsibilities during the lab's exercises. One person on the team ("Scribe") will be responsible for writing down results into the lab report. Another person ("Leader") will be responsible for proposing actions and what should be put into the report. Finally, if there is a third person the ("Critic") will be responsible for suggesting alternative actions. Different tasks, for example, operating the computer must be rotated among the team members so that each member can perform all tasks alone as **required on the midterm and final.**

After group discussions, each student should answer questions in the report sheets **independently**. If the same team assembles each week, students are required to alternate on their roles in the team. The reports must be completed and submitted during the class. Occasionally the team 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.**

Each report will be graded separately out of 10 points (total 110 for 11 labs). **No lab grades will be dropped.** A student's performance during the lab (10 points) and the results from two quizzes (5 points each) and two tests in which one works by oneself and not as a team (15 points each) will be included in the final grade (out of 160 total points). Letter grades are based on scaling of the points. In a laboratory course it is crucial to attend the lab sessions, **missing more than two labs** typically results in an F. Your lab reports are graded not by your lab instructor but by a separate hard to please grader so do a careful job. Your lab instructor will work with you to meet the demands of the grader.

Students must sign in at each lab. Labs can be made up only in the same week at another regular section held Monday to Thursday. It is recommended to consult with the instructor of the other section prior to doing the make-up lab. Be certain to put not just your name but the name and section of your regular instructor.

If you have questions please consult with your lab instructor, see contact information below.

Course Fee: To support the laboratory and related lecture demonstrations in the co-requisite course, PHY211, you have been charged a course fee of \$40. This fee helps pay for (i) laboratory manuals and other handouts, (ii) supplies, small pieces of apparatus, and maintenance for laboratory equipment, (iii) supplies and small pieces of apparatus for lecture demonstrations, and (iv) undergraduate students working in the student and demonstration laboratories.

PHY221 Lab Schedule (Spring 2008)

Week of:

Experiment:

Number Title

Jan 14, 22-24	I	Position, Displacement, Average Velocity
Jan 28-31	II	Instantaneous Velocity and Acceleration
Feb 4-7	III	Uniform Motion
Feb 11-14	IV	Motion in Two Dimensions
Feb 18-21	V	Forces(Quiz)
Feb 25-28	VI	$F = ma$
Mar 3-6	Individual Half-hour midterm based on I-VI labs	
Mar 10-13	Spring Break	
Mar 17-20	VII	Work and Energy
Mar 24-27	VIII	Momentum and Collisions
Mar 31-Apr 1-3	IX	Torque and Rotations
Apr 7-10	X	Conservation of Energy (Quiz)
Apr 14-17	XI	Behavior of Gases
Apr 21,23,24,29	Individual Half-hour final based on VII-XI labs	

Lab sessions are at the following times:

M	8:25-10:25 AM	10:35-12:35	12:45-2:45	3:45-5:45	8:00-10:00 PM
T	11:00-1:00	2:00-4:00 PM		5:00-7:00 PM	7:00-9:00 PM
W	10:35 AM-12:35	12:45-2:45	3:45-5:45	6:00-8:00 PM	
TH	8:00-10:00 AM	11:00-1:00	2:00-4:00 PM	5:00-7:00 PM	7:00-9:00 PM

Because most labs are full it is important to go as much as possible to your assigned session.

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Lab Supervisor:



Prof. Kenneth Foster

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Undergraduate Physics Office



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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.