

PHY221 General Physics Laboratory I (Spring 2010)

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.

Students must sign in at each lab. Labs can be made up only in the same week at another regular section held Tuesday to Friday. 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 \$50. 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.

Tentative PHY221 Lab Schedule (Spring 2010)

Laboratories start the week of January 25!!!

Week of:	Experiment:	
	Number	Title
Jan 25-28	I	Position, Displacement, Average Velocity
Feb 1-4	II	Instantaneous Velocity and Acceleration and Uniform motion
Feb 8-11	III	Uniform Motion (cont'd), Motion in Two Dimensions
Feb 15-18	IV	Forces (QUIZ)
Feb 22-25	V	$F = ma$
Mar 1-4		Individual Half-hour midterm based on I-V labs
Mar 8-11	VI	Work and Energy
Mar 15-18		Spring Break
Mar 22-25	VII	Momentum and Collisions
Mar 29-Apr 1	VIII	Torque and Rotations
Apr 5-8	IX	TBA
Apr 12-15	X	Conservation of Energy (QUIZ)
Apr 19-22	XI	Behavior of Gases
Apr 26-29		Individual Half-hour lab final on VII-XI labs

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

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.

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Lab Supervisor:



Prof. Kenneth Foster

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Office hours: by appointment.

Undergraduate Physics Office



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Lab Instructors:



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Office hour: Wed. 4-5 pm, Friday 11 am -12 pm



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Steven Stewart
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Office hour:

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.