

PHY221 General Physics Laboratory I (Fall 2011)

Introduction: This course provides hands on intuition about general physics covered in the PHY211 lecture course and develops some practical laboratory skills. An experiment could be slightly ahead of the lectures or go beyond the scope of the lecture in which case please consult your PHY211 textbook.

Lab worksheets 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, however only one report will be graded along with a **single** set of printouts or figures. The individual reports make it possible for everyone to keep a copy of the report when they are handed back the following lab class.

Even though the whole team should contribute to the consensus reports, they will have different responsibilities during the lab's exercises. One person on the team ("Scribe") will be responsible for writing down results. Another person ("Leader") will be responsible for proposing actions. 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 learn to perform all tasks alone as will be **required on the midterm and final**.

If the same team assembles each week, students are required to alternate 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.**

No lab grades will be dropped. A student's performance will be assessed by submitted lab reports out of 8 points for each of the 11 labs. An additional 2 points can be awarded for Prelabs, which are handed in at the beginning of each lab session after the first one. There is also a 10 point individual participation grade which is an assessment of how active you are in the lab. Finally, there are midterm and final mini-labs (20 points each) in which one works by oneself and not as a team. Letter grades are based on scaling of these 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. While it is **highly** recommended that you always attend your assigned section, labs can, for compelling reasons, be made up in the same week at another regular section held on a Monday or Wednesday. 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 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.

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.

PHY221 Lab Schedule (Fall 2011)

Laboratories are Mondays and Wednesdays.

Week of:	Number	Title
Aug 29 - Sept 7	I	Position, Displacement, and Average and Instantaneous Velocity (no prelab)
Sept 12 - 14	II	Acceleration and Uniform motion
Sept 19 - 21	III	Vectors and Motion in One and Two Dimensions
Sept 26 - 28	IV	Newton's Second and Third Laws
Oct 3 - 5	V	Diverse Forces, Springs and Friction
Oct 10 - 12		Individual 34-minute midterm
Oct 17 - 19	VI	Work and Energy
Oct 24 - 26	VII	Linear Momentum and Collisions
Oct 31 - Nov 2	VIII	Rotational dynamics and Torque
Nov 7 - 9	IX	Moment of Inertia, Angular momentum and its Conservation
Nov 14 - 16	X	Harmonic Oscillators and Conservation of Energy
(Note classes closed between Nov 20 and 27 due to Thanksgiving Break)		
Nov 28 - 30	XI	Behavior of Gases

This laboratory exam week runs Monday and Wednesday at your regular assigned time

Dec 5 - 7 Individual 34-minute lab final

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

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Lab Supervisor:



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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.

Religious observances policy

SU's policy (http://supolicies.syr.edu/emp_ben/religious_observance.htm) "recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice/Student Services/Enrollment/My Religious Observances from the first day of class until the end of the second week of class."

As already mentioned, if you have provided proper notification you may for religious observant reasons attend the lab at a different time during the same week. It is your responsibility to make this arrangement.