

Physics PHYS 1001 Laboratory, Fall 2011

Location: room . 3125 HP

Lab Supervisor: I.D. Ivanovic, room.3346HP, e-mail: igor@ physics.carleton.ca ; phone-ext. 5796

What will you need for Labs

Lab Manual PHYS 1001/1002 (can be purchased in Stacey 118) ,

A hard cover lab notebook (can be purchased in the Carleton's Bookstore) ,

Carleton report booklets. (6 – can be purchased in Carleton's Bookstore)

Organization and rules

- Laboratories begin week of September 12, 2011
- **Students must attend all the labs and tutorials.**
- Food and drinks are not allowed in the lab.
- Equipment is never borrowed from another workstation, if anything is missing or not working properly, ask for replacement.
- At the end of each experiment electric circuits must be disconnected, voltage supplies set to zero and turned off. Damaged or missing equipment must be reported.
- The workstation must be left clean and the equipment arranged as it was found.
- Remain in the lab until all the work of the day is completed and your Teaching Assistant has signed you out.
- As a rule students work in teams of two. While the data will be shared, each student will write his/her own lab report. No shared tables or graphs will be allowed.
- If your partner drops the course, you may be assigned to work with another partner.
- The schedule for the experiments/ tutorials can be found on the second page of this document.
- Brief theory overview and instructions on the measurements and analysis will be given at the beginning of each experiment. Students are expected to review the lab write up before starting each lab. Prelab notes in the log book will be checked by the TAs at the beginning of the lab period and a mark will be assigned. Prelab will count for 5% of the mark for the corresponding LAB
- A hard cover lab notebook with alternating graph pages is mandatory for work in the lab.
- All lab reports are due during the next Lab period (the exceptions are in class short reports which are due at the end of the lab period and Spring Constant which is due one week after it is performed) .
- There are three short, one formal and two in-class lab reports.

Grades and Relative weights

Short Reports	Reaction Time	15%
	Kinematics	
	Free Fall	15%
	Spring Constant	15%
Formal Report:	Torsional Pendulum	20%
In class reports: (short report)	Kinematics	
	Ballistic Pendulum	15 %
	Specific Heat	20%

Penalties for late reports

One day late -5%

Up to one week -20%

Between one and two weeks late -30%

Over two weeks late No marks given (report must still be handed in)

Conditions for passing the lab

The student must:

Obtain at least 50% overall average

Perform and submit all experiments (including those more than two weeks late)

Attendance and Makeup Labs

- The laboratory will be accessible for students during the scheduled lab times. For access to the lab at any other time prior arrangements must be made. Students being late more than 15 minutes after the beginning of a lab period will not be allowed to attend the Lab.
- Students who miss an experiment or tutorial (test) due to a very serious reason must arrange time with the lab supervisor for a makeup as soon as possible. A serious reason is considered e.g. a sickness (doctor's note must be provided) , or a family problem (a note from an elder in the family must be provided),
- Students who accumulate a backlog of missed labs will be asked to withdraw from the course.

Lab schedule

Labs Group A4 - Thursday , 2:35-5:25 p.m. Group A9 Monday 2:35-5:25

Week of Sep. 12th - Tutorial and Test

Week of Sep. 19th - 1st hour –Tutorial and Test
2nd and 3rd hour Reaction Time

Week of Sep. 26th - 1st hour Tutorial and Test
2nd and 3rd hour Error analysis

Week of Oct. 3rd - 1st hour Tutorial and Test
2nd and 3rd hour Kinematics – Free fall
(Reaction time –short report due)

Week of Oct. 10th – No Labs or Tutorials

Week of Oct. 17th - 1st hour Tutorial and Test
2nd and 3rd hour Kinematics – Ballistic Pendulum (in class short report)
(Free fall – short report due)

Week of Oct. 24th - Tutorial and Midterm #2

Week of Oct. 31st - Spring Constant (3 hours)

Week of Nov. 7th 1st hour Tutorial and Test
2nd and 3rd hour Handling Data
(Spring Constant – short report due)

Week of Nov. 14th - 1st hour Tutorial and Test
2nd and 3rd hour Torsion Pendulum

Week of Nov. 21st -Specific Heat (3 hours) (in class – short report)
(Torsion Pendulum –formal report due)

Week of Nov. 28th – Review.

Miscellanea

It is normal to consult with others in the course of an experiment. This is one of the reasons for students to work in pairs. Nevertheless, all sources of information must be stated, and both the substance and text of all submitted Lab reports must be student's original work.

Sometimes you will get things wrong because of an error in the manipulation of apparatus or malfunction of the equipment. The lab instructor will help you out with the problem or in the case that you can not get your own data, you may use the data of another group (with the permission of the lab instructor), provided you acknowledge it.

The following things rarely happen but:

- fabrication or falsification of data, using results of another student's work without acknowledgment are intellectual offences, as serious as plagiarism. It is also considered a capital academic offense and in some cases may lead to the loss of academic status.
- In this course, any lab report copied in whole or in part from another source will automatically receive a grade of zero.
- In the case that two students present reports where parts have evidently been copied from one another, both reports will receive a grade of zero.

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