

## Welcome to the Physics 1B Lab!

<http://webct.ucsd.edu>

The Physics 1 series lab curriculum has been developed with the following goals:

- (1) To create relevant and useful labs for non-physics majors.
- (2) To concentrate on the fundamental concepts of measurements in the context of physics.
- (3) To allow students room to explore their own ideas & exercise their own creativity.

Different physics instructors teach the material using different schedules, so there will be times that the material covered in lab will not match what is covered in lecture. When the lab material is ahead of the lecture material, you will be expected to read ahead in the text. Each lab manual will ask you to read relevant sections in the text. Sometimes the lectures will help you do the lab, and sometimes the lab will help you to understand the lectures.

### What you will need to bring to each lab (required)

- A quad-ruled lab notebook with carbon pages. You may continue to use the same notebook as you did in 1AL.
- A copy of your completed Pre-Lab Questions to turn in & a copy in your lab notebook that you keep.
- A copy of the lab manual for each experiment. You can download the lab manuals from WebCT. **Do not use older copies of the lab manual.**
- Pen(s), a #2 pencil, and scientific calculator. You may find the textbook handy too.

### Grading

There are nine labs, one each week. **There are NO make up labs.** Each lab is worth 30 points. The pre-lab work is worth 10 points, the in-lab work is worth 10 points, and the post-lab work is worth 10 points.

For Fall 2007 we will be taking the best 8 of 9 combined (homework + lab) scores. The grading scale will be based on the performance of the class. The grading scale for the class will try to follow the standard grading scale of 100% - 90% as an A, 89% - 80% as a B, etc.

Your pre-lab homework is to be turned in at the beginning of the lab. Only handwritten homework will be accepted. You are expected to use a **notebook with carbons**. You **must** turn in one copy of your homework and keep one copy in case if there's any disputes or missing grades.

When you come to lab, you will turn in one copy of your pre-lab homework. It is important for you to retain a copy of your answers in your lab notebook. Partial credit will be given, so it is in your interest to attempt all pre-lab homework problems and to explain your work.

Before the lab starts, you will take a short reading quiz, based on the information in the lab manual. The quiz is worth 2 of the 10 in-lab points. The in-lab experiments will contain both quantitative and qualitative procedures. Experiments requiring quantitative data and calculations must be clearly presented, including explicit calculations, data tables, and graphs when appropriate. You must answer questions in complete sentences, and use a ruler when making graphs and tables. Lab grading is done in-lab by the end of each experiment. Your TA will visit each group of students and check their work as the lab progresses. Please note that labs are only 110 minutes long, and the schedule does not permit students to stay late to complete a lab.

The post-lab activity is to be done outside of the lab after you have completed the lab activity, and is to be turned in at the beginning of the next lab. The post-lab activity is to be done in your notebook so that you will have a copy to turn in and a copy to study from. Again, full credit will only be given to students who submit correct solutions, but partial credit may be awarded if deserved.

Being late to lab is extremely disruptive for the TAs and other students. **One point will be taken off the lab score for every 5 minutes late.** Students who arrive more than 30 minutes late will not be permitted to do the lab, and must see the Lab Instructor for further directions.

**NOTE ON GRADES:** All current lab grades will be posted to the lab website. It is the **student's responsibility** to check the lab website to make sure that their own grades are correct. If there are any errors, the student must contact their TAs in-person at their next lab section meeting and resolve the problem. **All posted grades become final two weeks after they are posted.**

### **Academic Integrity**

For all lab activities, we encourage you to share and discuss ideas with your classmates. However, all work that you submit for a grade (pre-lab, in-lab, and post-lab work) should be your own. Be sure to **show work** in your calculations and answer questions **in your own words**. If a student is guilty of academic dishonesty, they will be failed from the course and their case will be submitted to the Dean for possible expulsion from the University of California. Examples of academic dishonesty are copying assignments from fellow or past students, and submitting work done by another. Please see the university policy on academic integrity in the general catalog or at

<http://www-senate.ucsd.edu/manual/appendices/app2.htm>

### **Lab Safety**

All students are asked to wear closed toe/heel shoes to the lab. Please do not wear clothes or jewelry that may interfere with lab equipment (loose long sleeves, dangling bracelets, etc.) or that would prohibit you from participating in lab activities (standing on chairs or skateboards or kneeling on the floor). Do not wear anything that you value in the lab. All other safety equipment (goggles, gloves, etc.) will be provided in the lab. Horseplay is dangerous in a laboratory setting and students who are acting in a manner that is not safe will be asked to leave the lab and will be given zero credit for that experiment.

It is important to keep the lab a safe, clean environment. You may not eat inside the labs at all. Always keep the equipment and the lab tables organized. Leave your lab table as clean as you found it. If you litter in the lab or leave your table in disarray, everyone at your lab table will lose points from your in-lab grade.

### **Policy for Lab Section Changes and Late Adds**

All section changes must be handled via WebReg <http://tritonlink.ucsd.edu>. Late adds must be done by the Registrar's Office. Do not enroll in a section you cannot attend.

### **Wait Lists**

Please follow directions for wait listing from <http://tritonlink.ucsd.edu> via WebReg, if there are any other troubles please stop by the physics department for undergraduate affairs.

### **Contacts**

- ❑ Contact your Lab TA for questions concerning grading of your labs and things not clear to you in the lab manuals.
- ❑ Contact your Lab Instructor (LI) for questions that your TA can't answer and complaints about TA performance or behavior. Your Lab Instructor is:

William Whartenby ([wwharten@ucsd.edu](mailto:wwharten@ucsd.edu))

Contact the course instructor Michael Anderson ([mganderson@physics.ucsd.edu](mailto:mganderson@physics.ucsd.edu)) for anything not satisfactorily handled above, complaints about TA performance or behavior, or suggestions for improvements to the lab curriculum.

### **Help**

If you would want help completing your pre-labs and post-labs, the instructors have weekly office hours, posted on WebCT. There is also free physics tutoring available in the Physics Tutor Center. It is open Sunday and Thursday, from 12pm-5pm, in WLH 2125.