

## 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, using older copies of the lab manual will result in a zero grade for the assignment in question.**
- ❑ Pen(s), a pencil, textbook, and scientific calculator.

### Grading

There are nine labs, one each week. **There are NO make up labs.** Each lab is worth 20 points (except for the final lab which is worth 15 points but will be scaled to 20). The pre-lab work is worth 3 points, the in-lab reading quiz is worth 7 points, the in-lab work is worth 5 points, and the conclusion is worth 5 pts.

For Winter 2010 we will be taking the best 8 of 9 combined 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, 89.9% - 80% as a B, etc (with + and – determined by the instructor). Variations in grading due to different sections will be accounted for in the final grades.

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 there are any disputes or missing grades.** Partial credit will be given, so it is in your interest to attempt all pre lab 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, your pre-lab work, and the associated reading. The quiz is worth 7 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 conclusion 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 conclusion is to be done in your notebook so that you will have a copy to turn in and a copy to study from. You must attend lab in order to turn in a conclusion.

Being late to lab is extremely disruptive for the TAs and other students. **One point will be taken off the lab score for every 10 minutes late. Also, students who are more than 20 minutes late will not be allowed to take the reading quiz.** Students who arrive more than 30 minutes late will not be permitted to do the lab, and must see the Lab TA Coordinator (LTAC) for further directions.

**NOTE ON GRADES:** All current lab grades will be posted to WebCT. It is the **student's responsibility** to check WebCT 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 work, reading quizzes, in-lab work, and conclusions) should be your own. Be sure to **show work** in your calculations and answer questions **in your own words**. Answers without the proper work may not receive credit. Any case of a student suspected of academic dishonesty will be submitted to the Dean for adjudication, which may include failing the course, receiving a permanent mark on the student's transcript, or 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 the lab.

It is important to keep the lab a safe, clean environment. **You may not eat or drink 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 TA Coordinator (LTAC) for questions that your TA can't answer and complaints about TA performance or behavior. Your Lab TA Coordinator is:

Stanley Chan ([szchan@physics.ucsd.edu](mailto:szchan@physics.ucsd.edu))

Colin Chrystal ([colin.chrystal@gmail.com](mailto:colin.chrystal@gmail.com))

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, final grade inquiries, or suggestions for improvements to the lab curriculum.

### **Help**

If you would like help completing your pre-labs, the Lab TA Coordinators have weekly office hours, posted on WebCT. There is also free physics tutoring available in the Physics Tutor Center. It is open three days during the summer: Sunday through Thursday, from 3pm-8pm, in 2702 Mayer Hall. For more information about the Physics Tutorial Center go to: <http://tutorialcenter.ucsd.edu>.