Summer Lab TA Orientation

Description of laboratory schedule for Physics 104/105/116/117:

Students taking Phys104/105/116/117 during the summer attend lab twice a week for 4 weeks for a total of 8 lab sessions in which 7 laboratory experiments are performed plus the Lab Exam (compared to 10 full lab sessions during the fall or spring). Full written reports are expected for at least 2 of these experiments, with submission of reports via WebLabs as an option for the other 5 experiments. Data analysis worksheets are also available for several of the experiments to reduce the report preparation time. Because of the compressed schedule, there is no separate preliminary lab meeting, so all introductory material (review of syllabus, expectations, introduction to error analysis or measuring devices) must be included during the lab period in which the first experiment is performed. The Lab Exam will be administered during the final lab session. As in the fall and spring, the Lab Exam will count as 20% of each student's overall lab average.

Expectations of summer physics lab TAs:

- If you have not already taught the lab you are assigned, then you must perform each experiment and analyze the data so that you know how to advise students when they have difficulties. Give a copy of your experimental results and data analysis to the Lab Director BEFORE you teach the lab to show that you have satisfied this requirement.
- Be sure to arrive to your lab sessions at least 5 minutes early and start labs on time.
- Follow the Lab Grading Guidelines (see handout). Grade and return lab reports by the next lab meeting. Timely feedback to students about the quality of their lab reports is especially important during the compressed summer schedule.
- After grading each set of lab reports, record your lab scores in the official spreadsheet. Remember that lab section averages should be around 80% with a standard deviation of 8%; significantly higher or lower lab section averages may be adjusted by the Lab Director to ensure uniformity in grading by different TAs.
- Each TA responsible for one lab section is expected to spend two hours per week in the Physics Tutorial Center. Please adhere to the Tutorial Center Guidelines (see handout).
- Make a syllabus to give to your students at the first lab meeting. Be sure to include your policy on late labs and making up experiments (there are no make-up labs, but one excused absence per student is permitted for circumstances beyond the student's control).
- Office hours – In addition to your assigned Tutorial Center hours, you must reserve at least two hours each week specifically for your lab students. Be sure to publish these office hours on your syllabus so that your students know when and where to find you if they need help.
- There are no weekly TA meetings during the summer. If you have questions or concerns, please consult the Lab Director, Lab Manager, another TA, or the course instructor.
- Be sure to let Shane know if any equipment is missing or not functioning properly so that the situation can be remedied as soon as possible.

Announcement to Physics 104 and 116 students (to be sent by email on 5/13/08):

Physics labs for the first Summer Session begin this Thursday and Friday, and since there is no introductory lab session before the first lab experiment, here is some information that you should know about this lab course.

1) Each student registered for the course must also be registered for the lab. If you need assistance registering for a particular lab section, please see Sallie Anderson in Phillips 278, Shane Brogan in Phillips 215F, or myself in Phillips 203.

2) There are no make-up lab sessions, so if you cannot attend your regular lab section, then you must coordinate with your lab instructor or the Lab Manager to attend another lab section in which the same experiment is performed. Remember that there are only two days in which each experiment is taught, so it is best to communicate by phone or in person so that time is not wasted sending emails back and forth.

3) Lab manuals are available in the Course Pack section of the campus bookstore. Be sure to read the introduction and error analysis sections of the lab manual before coming to the first lab session. To check your understanding of error analysis, take the Measurement Uncertainty quiz
available online:
http://www.physics.unc.edu/~deardorf/uncertainty/quiz.html
Then examine the answers and explanations at:
http://www.physics.unc.edu/~deardorf/uncertainty/quiza.html

If you still are uncertain about the subject of uncertainty, ask your lab instructor or go to the Physics Tutorial Center in Phillips 245. This free drop-in resource center opens today and is available to all introductory physics students. For hours, consult the schedule posted on the door to room 245 or posted on the lab website.
http://www.physics.unc.edu/labs

4) In preparation for your first lab experiment, read through the description of the first lab in your lab manual and answer the pre-lab questions on a sheet of paper. This pre-lab assignment may be hand-written or typed and is due at the beginning of each lab period.

5) As in the spring and fall semesters, there will be a Lab Exam to assess each student's individual ability to make accurate measurements, analyze data, and correctly report results. This hands-on exam will be administered during the last week of the course. Additional information and practice lab exams are available on the physics labs website:
http://www.physics.unc.edu/labs

If you have any questions or concerns about your physics lab, feel free to contact me, our Lab Manager (Shane Brogan: brogshan@physics.unc.edu), or our Senior Lab Manager (Christy Redmon: credmon@physics.unc.edu).

-Duane D.

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