

Physics 212i: Laboratory in Quantum Physics Spring 2002 General Course Information

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Welcome

Welcome to the Spring 2002 edition of Physics 212i: Laboratory in Quantum Physics! The lab manual and the **Course Schedule** should contain any information not found here.

Instructor Contact Information

Instructor: Fronefield Crawford	Instructor: Scott Shelley
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Feel free to drop by anytime, or, if you prefer, you can call or email us to arrange a time to meet.

Meeting Times

Labs: Thu 1:15 - 4:00 in Stokes 6 (basement) every week

See the **Course Schedule** for specific dates. There will also be individually scheduled meetings with the instructors for presentation of oral reports for some labs.

General Items

Lab Plan: You will pick a lab partner at the start of the course and will work in pairs on each lab. Each pair will spend two weeks working on a lab, rotating through all six labs by the end of the term (see the **Course Schedule**).

Textbook: *Modern Physics* by Bernstein, Fishbane, & Gasiorowicz (used for Physics 214)

Note that the Physics 212i lab manual is also required and can be bought at the college bookstore.

Lab Questions: The labs have questions in the text. You should answer these questions and turn them in with your lab report (or have them ready at your oral presentation). Be sure to carefully read through each lab to see all of the questions.

Grading: For the six lab reports, you will submit the following kinds of reports (see the **Course Schedule** to see which reports go with which labs and how many points each is worth).

- **3 Short Reports:** Short reports should include descriptions of what you did, how you did it, and what the purpose of the experiment was. You should also discuss your results and what they mean. It is important that you include any graphs and tables (printouts are OK) in the report and that you answer any lab questions from the lab. You might want to photocopy your lab notes to hand in, but make sure everything is legible. Short reports (and associated lab questions) are due *one week* after the end of the lab.

- **1 Formal Report:** The formal report should follow closely the section in the lab manual called *Advice on Written Reports*. You should aim to mimic a scientific presentation (such as a journal paper) with this report, and therefore should include a significant amount of detail in the background and motivation, the experimental methods, the results, and the discussion and interpretation of the results. Be sure to include relevant graphs, figures, and tables in the report. The report should be typed. The formal report (and associated lab questions) is due *two weeks* after the end of the lab.
- **2 Oral Reports:** For the oral reports, you will schedule an individual appointment with the instructors to come in and discuss what you did in the lab, what you found, and what it means. You may also be asked other questions related to the lab in this session including the lab questions. Oral presentations are to be scheduled for no later than *one week* after the end of the lab.

Late Work: Reports turned in or presented late will be assessed at 90% of their value if turned in up to 1 week late, 80% of their value if turned in between 1 and 2 weeks late, and 60% of their value after that.

Honor Code: Although you are working in pairs on each lab, each person must submit their own write-up of the lab. Questions about Honor Code matters should be directed to the instructors.