

Physics 102b: Classical and Modern Physics II

Spring 2002 General Course Information

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Welcome

Welcome to the Spring 2002 edition of Physics 102b: Classical and Modern Physics II! This is the second part of the year-long sequence of the general survey of physics. We will cover a number of interesting topics this semester which are outlined in more detail in the **Lecture Topics** listing and the **Course Schedule**. Briefly, the topics we will cover are: oscillations, waves, sound, electrostatics, DC circuits, magnetism, induction, light, scattering, geometric and physical optics, AC circuits, and quantum physics.

Instructor Contact Information

Lecturer: Fronefield Crawford
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Office Hours: Mon 2:00 - 4:00

Lab Instructor: Steve Wasserbaech	Lab Instructor: Scott Shelley
Office: Stokes 115	Office: Stokes 105
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Email: swasserb@haverford.edu	Email: sshelley@haverford.edu

Feel free to drop by anytime, or, if you prefer, you can call or email us to arrange a time to meet.

Meeting Times

Lectures: MWF 11:30 - 12:30 in Stokes 104 (every week)
Recitations: Tue or Wed 2:00 - 3:00 in the Observatory (on the alternate weeks with no lab)
Labs: Tue or Wed 1:15 - 4:00 in Stokes 108b (on the alternate weeks with no recitation)

See the **Course Schedule** for specific dates. Please do not switch lab or recitation sections without approval since we need to keep the numbers roughly even in the sections.

General Items

Textbook: *Physics: Calculus* by Eugene Hecht (required)

Note that the Physics 102b lab manual is also required and can be bought at the college bookstore.

Grading: There will be two midterm exams (taken in-class) and a final exam (self-scheduled), plus homework and labs. Here is the breakdown of the weighting for the course grade:

Homework	30%
Labs	20%
Midterm Exam 1	15%
Midterm Exam 2	15%
Final Exam	20%

Lab Policy: You are required to complete *all of the labs* to get a passing grade for the course. If for any reason you cannot attend one of the labs, you must talk to Froney, Steve, or Scott *in advance* to make alternate arrangements (this is because the lab apparatus is normally taken down soon after the lab is finished). There may also be pre-lab questions to be answered and handed in at the beginning of a lab session (see the lab manual for details). Labs are due a week after the lab is finished and are to be turned in either in recitation or in the box marked *Physics 102* outside my office.

Homework: Homework assignments will be given out roughly weekly. Homework is due to be handed in at the *beginning of class* on the assigned date. Answers to the odd-numbered problems in the Hecht book are provided in the back of the text. This is useful for checking your work but is not a substitute for working out the problem yourself. Complete homework solutions will be posted as soon as possible after the homework is due. You are not allowed to copy the solutions if you are turning in the homework late.

Homework Late Policy: You are allowed three one-week extensions on your problem sets. You cannot use more than one extension on the same problem set. Aside from the extensions, homework turned in up to a week after it is due will be assessed at 50% of its value. Homework turned in more than a week late will be assessed at 25% of its value.

Recitations: We will have recitation meetings during weeks in which there is no lab. In the recitation sections, you will form groups to work on problems handed out at the start of recitation. These problems are meant to enhance your understanding of the material presented in the lectures. They also provide an opportunity for you to resolve any misunderstandings about the material and develop your problem solving skills. While you work on the problems, Froney will wander around to the different groups and discuss the problems and your approach to them. These problems will not be turned in for credit.

Physics Clinic: An optional physics clinic is held every Mon and Tue from 7 to 9 pm in the physics lounge (Stokes 107). Physics majors are available at the clinic to answer questions and give you additional help on the material.

Honor Code: Haverford takes the Honor Code very seriously. The idea behind this is that you should never falsely represent your work as your own. It is okay to work together on homework problems, but you should not be doing all of the work or none of the work in your group. You must also turn in your own write-up for the homework even if you worked on it with others in a group. After the homework solutions are posted, you are not allowed to just copy them and turn them in late. Exams, of course, must be worked on individually. Any questions about Honor Code issues can be directed to Froney.