Class: 132-52-53, MWF 10:10am-noon; -54-55 MWF 12:10-2pm
Instructor: Dr. Jonathan Fernsler
Instructor page: http://www.calpoly.edu/~jfernsle
Office Hours: M, W 2:10-4pm, F 1:00-3:30. Feel free to stop by- if I’m busy we’ll schedule another time. I may be in my lab in 180-530.

Text and Materials (available at bookstore and elsewhere)
- *Physics for Scientists and Engineers* by Randall D. Knight (Pearson Addison-Wesley, 3rd Edition)
- *LON-CAPA* for online homework (online). The website is [http://loncapa.calpoly.edu](http://loncapa.calpoly.edu)
- Spiral bound notebook for homework
- Scientific calculator (trigonometric functions, scientific notation, etc.)

Course goals:
- Improve your conceptual understanding of oscillators, waves, ray optics and thermodynamics.
- Develop your skills in representing and predicting phenomena in the physical world.

Class time and assignments: There will be little lecturing so your main source of information is the text. You are to read the appropriate sections in the textbook and work the examples prior to each class meeting. During class time there will be interactive demonstrations, and individual/group work focusing on conceptual exercises, problem solving, laboratory, and other activities. Regular class attendance is expected!!

Groups: You will be assigned to specific groups during the quarter. Please sit with your group in the room and work together to complete exercises and other activities.

GRADING (approximate letter grades and percentages for each category)

<table>
<thead>
<tr>
<th>Homework</th>
<th>Quizzes</th>
<th>In-class Exams (lower counts less)</th>
<th>Final Exam</th>
<th>Laboratory (see note)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 %</td>
<td>10 %</td>
<td>15 % + 20 %</td>
<td>25%</td>
<td>15 %</td>
<td>100%</td>
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**Homework:** Homework will be done on-line using the LON-CAPA system. Some of the online problems will have randomly generated numbers. It is helpful to solve problems symbolically, rather than immediately plugging numbers, so I can check your work if you have questions. Computers can be frustrating. Don’t let them be. Spend a reasonable amount of time. If things are not working, send me an email. We can clean up the details later.

**Quizzes:** There will be quiz each week, except when there is an exam. The quizzes will be conceptual in nature and will require explanations. There will be limited time for the quiz, ten minutes at most. Come prepared to write.

**In-class Exams:** There will be two exams during class period: the week of April 20 (Chaps 14, 20, 21) and the week of May 11 (Chaps 22-23). Exams will be closed book, but you will be supplied with a formula sheet.

**Final exam:** The final exam is TBA during finals week June 8-12. It will be cumulative with emphasis on Chaps 15-19. The final exam will be closed book/note; however, you will be supplied with a formula sheet.

General Policies:
- I encourage you to work with other students (form groups?); however, you must do and turn in your own work.
- Work submitted for credit must be on time, stapled, neat (no perforations), and readable. Your work should be clearly organized on the page, with explanatory phrases, correct units, and the answer circled or boxed. Late or messy work will receive less than full credit.
- If there is a problem (illness, car trouble, course conflict, game, performance, etc.) let me know as soon as possible and we might be able to make other arrangements.
- Check the appropriate university documents for details and deadlines concerning academic honesty, adding, dropping, grading, withdrawal, incomplete, etc.
- Unforeseen circumstances may necessitate changes in this information. Changes will be announced in class and posted on the course website.