

Course Syllabus

Instructor: Frank Cascarano
Office & Office Hours: 4404 – see my web site for hours
PSME Center Hours: Additional help available at the PSME Center
Phone & email: 650/949-7784 cascaranofrank@foothill.edu
Class Website: www.foothill.edu/~cascarano

Required Text & Materials:

1. Physics, 4th Edition, Walker (ISBN: 0321541634) or equivalent text
2. Scientific Calculator
3. Laboratory Notebook (see your lab instructor)

Optional Materials:

Mastering Physics Website Access – Comes free with new textbook or purchase separately

Course Objectives: You will be expected to have gained a thorough understanding of the material presented to you by attending all lectures, participating, reading assigned material, working homework problems, and asking lots of questions. In addition, I hope you come away from the class with an appreciation of physics and the inclination to question the world around you.

Course Content: Chapters 16 – 24 in Physics

Course Grade: Your final grade will be based on the total number of points you receive for the following:

<u>Item</u>	<u>Points</u>
Laboratory	75
Exam #1	100
Exam #2	100
Exam #3	100
Exam #4	100
Final Exam	225
Total Points	700

Make-up policy: There are NO make-ups. If you arrange it ahead of time I may give you an early test. A missed quiz or exam results in a zero for that test. Your lowest exam score will be replaced with your final exam score, if it helps you. Absence from the final exam will be treated individually, but typically results in an F grade.

I may adjust the curve based on the class results. However, I strive for:

A+: >98%	A: 93-97%	A-: 90-92%
B+: 88-89%	B: 83-87%	B-: 80-82%
C+: 78-79%	C: 70-77%	D: 60-69%
		F: <60%

Attendance: You are responsible for everything that takes place in class including new assignments, assignment changes, and schedule changes. Regular attendance is highly recommended.

In class work: You will be doing a lot of in class worksheets and problems. This work will be done in small groups. Help each other, question each other, teach each other and you will all be better because of it. I do not grade on a curve, so helping your classmate will not hurt you. Working problems is one of the best ways to learn the material in a physics course. Do the homework religiously and don't get behind! Work with other students and see your instructor frequently - don't be afraid to ask for help.

Exams: Several one-hour exams will be given throughout the course. A comprehensive final exam will be given at the end of the course. Your lowest exam score will be replaced with your final exam score if it helps your overall grade.

Learning Outcomes: Upon completion of the course the student will be able to . . .

- A. Explain the Zeroth, First and Second Laws of Thermodynamics and solve related problems and calculate results from statistical mechanics, such as the kinetic theory of gases.
- B. Discuss basic electrostatics and electric potential, and solve related problems.
- C. Analyze resistance, capacitance, and DC circuits, computing associated quantities.
- D. Discuss magnetic fields and forces, and solve related problems.
- E. Extrapolate their understanding of DC circuits and circuit elements to AC circuits.
- F. Explain electromagnetic waves.
- G. Assess the limitations of physical laws and make mathematical approximations in appropriate situations.
- H. Understand how physical laws are established and the role of scientific evidence as support.

Laboratory: Laboratories will be a continuation of material covered in lecture. They are hands on, exploratory exercises, done in small groups. See your lab instructor for details, but grades may be based on participation, quizzes, results, and written reports. Note: you must pass the laboratory to pass the class. You must be present to collect your own data, even if you have taken the lab previously.

Cheating: According to the college rules, cheating will result in severe punishment. If you cheat on an assignment you will receive a score of zero on that assignment (no substituting). If you cheat on a second assignment you will receive an "F" grade for the class. For this, cheating means: (1) providing to other students answers or partial answers to quiz and exam questions, (2) obtaining from other students answers or partial answers to quiz and exam questions, and (3) obtaining information or direct answers from unauthorized materials during quizzes and exams. Students who need help in understanding quiz and exam questions should consult with me to avoid the appearance of cheating. Please note that you are encouraged to work with your fellow students on homework assignments and labs and you may use any materials you need to do the homework and labs.

Conduct:

1. Come to class on time, having read the required materials
2. Do not disturb the class with talking or other disruptive behavior
3. Participate in class discussions and ask questions when you do not understand something
4. Laugh at my jokes
5. Work together on homework and individually on quizzes and exams
6. Turn off cell phones during class

Disability Statement: Any student who feels he or she may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. I will work with the Disability Resource Center to coordinate reasonable accommodations for students with documented disabilities.

I will make myself available as much as possible for those that need extra help. I know that you can all be successful in this course if you attend lectures, are alert and participate during lectures, work homework problems, take good notes, work additional problems, see your instructor if you need extra help, and work more problems. I am looking forward to a great quarter!