

Department of Physics

Physics 2C

Spring 2013

Physics-Thermodynamics & Waves

INSTRUCTOR: Professor Frank Würthwein, fkw@ucsd.edu
5515 Mayer Hall, Ext. 2-3219
Office Hours: Wednesday 6-7pm

WEB: <http://hepuser.ucsd.edu/twiki2/bin/view/UCSDTier2/Physics2CSpring2013>

COURSE

COORDINATOR: Patti Hey, 118 Urey Hall Addition

TEACHING ASSISTANT: Brian Shotwell bshotwell@ucsd.edu
Office Hours: Friday 11am-noon
Office Location: 4514 Mayer Hall

COURSE SCHEDULE:

Lectures:	MWF	4 - 4:50 pm	Peter 110
	Thu	5 - 5:50 pm	Solis 107
Weekly Quiz:	See schedule below		
Discussion:	W	5:00pm -5:50 pm	Peter 110
Weekly Quiz Prep:	Thu	7:00pm - 8:50pm	WLH 2005

First lecture: Monday, April 1st

FINAL EXAM: Thursday June 13th, 3:00pm - 5:50pm

TEXT: Wolfson, Richard and Jay M. Pasachoff, Physics for Scientists and Engineers, 3rd Edition, Addison Wesley.

COURSE INFORMATION: Physics 2C is the third quarter of a four-quarter introductory physics sequence. This third quarter is concerned with Thermodynamics and waves. The course is aimed at students majoring in science and engineering.

OPPORTUNITIES FOR HELP OUTSIDE OF LECTURE:

Discussion Sections: This is an informal period intended for you to ask questions about material covered in lectures. You are advised to attend this section and to make it successful by actively participating.

Discussion sections are optional. A minimum of one student needs to be there on time, otherwise the section is cancelled for that week.

HOMEWORK ASSIGNMENTS: Problem sets are assigned weekly. Problems will be worked out in detail during the discussion sessions. The homework will not be graded.

QUIZZES: Weekly closed-book quizzes will be given in accordance with attached course outline. Quizzes will be multiple choice.

1. Before the first Quiz on Monday, April 8th, you receive a code number your email address listed with the registrar. This code number is the only way for me to communicate grades to you.
2. You will have to provide your own scantron form (Red X-101864-PAR-L). These are sold at the bookstore. You will need a No.2 pencil to fill in the scantron card. **No scantron card or no pencil, no credit for the quiz.** You should write you code number, course number and quarter on the space provided. Detailed instructions will be given by the proctor at the first quiz.
3. You May bring a simple calculator to the quiz. Do not bring a calculator that stores text and do not use a laptop or a cell phone. You should bring blank sheets of scratch paper on which to work out problems.
4. You May bring a one page “cheat sheet” to the quiz.
5. Recorded grades will be posted by code number on the course web site.
6. Any appeal to the grading of quizzes should be made in writing to the teaching assistant, within one week of the posting of the grades for that quiz. You must provide a written explanation as to why you are appealing the grade (be specific).
7. Your overall quiz grades will be computed from the best 7 of the 8 quizzes and will count 70% towards the final grade. One of the quizzes can therefore be used for absences without penalty. Therefore **there will be no make-up quizzes.** If you anticipate missing more than one quiz due to unavoidable circumstances, you must discuss this with the instructor **beforehand.**
8. **Each Quiz will appear in several different versions. Your direct seat neighbors will thus have a different version than yourself. So don't bother cheating.**

FINAL EXAMINATION: The final examination will cover all of the material of the course. It will be given on the scheduled date specified by the University for this course (location to be announced). Your student ID is required to take the final examination. The final exam will be multiple choice. You May prepare a single sheet (2 pages) of formulae relevant to the material in this course and bring it with you to the exam.

GRADING POLICY:

Quizzes	70%	(best 7/8)
Final exam	30%	

This course is graded based on absolute grades according to the following scale:

A+	> 85%
A	80%
A-	75%
B+	70%
B	65%
B-	60%
C+	55%
C	50%
F	<50%

GRADING ISSUES: The first line of defense for resolving all grading related issues is the TA. The lecturer gets involved only to adjudicate in cases when you can't resolve an issue with the TA.

ACADEMIC DISHONESTY: Please read "UC Policy on Integrity of Scholarship" of the UCSD General Catalog. These rules will be enforced. For all quizzes and exams cheating includes: submitting another person's work as your own, alteration in a quiz prior to a grade appeal, copying from another student in class, and the use of any unauthorized materials or aids during the exam.

LECTURE AND QUIZ SCHEDULE

The schedule May change depending on how the quarter progresses.

Date	Topics	Chapters in Wolfson/Pasachoff
April 1st April. 3trd April 4th April 5th	Introduction Ideal Gas, Phase Diagrams 1st Law & thermodynamic processes	Chapter 19 Chapter 20 Chapter 20 Chapter 21
April 8th April 10th April 11th April 12th	Quiz 1 Cyclic processes Heat engine & refrigerator 2 nd law of thermodynamics	Covering Chapters 19,20 Chapter 21 Chapter 22 Chapter 22
April 15th April 17th April 18th April 19th	Quiz 2 Entropy Hydrostatic equilibrium Fluid Flow	Covering Chapters 19, 20, 21, 22 Not in textbook the way I teach it. Chapter 18 Chapter 18
April 22nd April 24th April 25th April 26th	Quiz 3 Waves Waves Superposition Principle	Covering Entropy & Chapter 18 part 1 Chapter 16 Chapter 16 Chapter 17
April 29th May 1st May 2nd May 3 rd	Quiz 4 Sound Waves Standing Waves Doppler Effect	Covering Chapter 16 & 18 part 2 Chapter 17 Chapter 17 Chapter 35
May 6th May 8th May 9th May 10th	Quiz 5 Optics: Reflection & Refraction Total internal reflection & dispersion Mirrors	Covering Chapter 17 Chapter 35 Chapter 35 Chapter 36
May 13th May 15th May 16th May 17th	Lenses Optical Instruments Quiz 6 Coherence & Interference	Chapter 36 Chapter 37 Covering Chapter 35 & 36 Chapter 37
May 20th May 22nd May 23rd May 24th	Interferometry Huygens Principle EM waves Quiz 7	Chapter 37 Chapter 37 Chapter 34 Covering Chapter 37
May 27 th May 29th May 30th May 31 st	Memorial day – no class EM waves Polarization EM waves	No class Chapter 34 Chapter 34 Chapter 34
June 3rd June 5th June 6 th June 7th	Quiz 8 Gravitaitonal Waves & stuff like that Final Review Final Review	Covering Chapter 37 & 34 Not part of final exam
June 13th	Final Exam!!!	Success