Department of Physics

Physics 1C: Waves, Optics & Modern Physics
Summer Session I, 2011

Instructor: Alexey Vlasenko — avlasenko@physics.ucsd.edu
Office: SERF 318 — Office Hours: MW 2:00 - 3:00

TA: Brian Shotwell — bshotwell@ucsd.edu
Office: MHA 4514 — Office Hours: Tue 5:00 - 6:00

Textbooks: Serway, Physics 1C (UCSD custom textbook), Vol. 1 and 2, 4th Edition

Course Website:
http://physics.ucsd.edu/students/courses/summer2011/session1/physics1c/

CLASS STRUCTURE:

Lectures:	MTWTh	3:30-4:50pm	York 2722
Problem Sessions:	W	7:00-8:50pm	WLH 2111
Midterm 1:	Th, 07/07	3:30-4:50pm	York 2722
Midterm 2:	Th, 07/21	3:30-4:50pm	York 2722
Final:	Fri, 07/29	3:00-6:00pm	York 2722

Please check the schedule and make sure you can be there for all the exams. If there is a serious emergency or some other valid reason why you cannot make it to an exam, inform the instructor as soon as possible.

Grading:
Midterms: 40%
Final: 40%
Homework: 20%

Midterms: The first midterm will cover oscillations and waves, while the second midterm will be primarily on optics, interference and diffraction. The midterms will be open-book, open-notes: this means you are allowed to bring the course textbooks, your lecture notes, and printouts of any materials posted on the course website. No other materials are allowed.

Final: The final will cover all the topics from the midterms, plus modern physics. As with the midterms, the final will be open-book, open-notes.

Homework: Five homework sets will be assigned. Homework assignments and solutions will be posted on the course website.

Academic Integrity:	Cheating on exams and homework assignments will not be tolerated. Any incidents will be immediately reported to the Academic Integrity Office. Refer to the section on integrity of scholarship in the General Catalog for more details.	
Add / Drop Deadlines:	Last day to add	July 1
	Last day to drop without a W	July 8
	Last day to drop with a W	July 27

SCHEDULE:
Note that the lecture schedule is tentative and likely to change.

Week 1	Monday	Course intro Simple harmonic motion (SHM)
	Tuesday	Pendulum & other examples of SHM
	Wednesday	Conservation of energy in SHM & other topics
	Thursday	Wave phenomena, terminology **HW1 due**
Week 2	Monday	**Independence Day**
	Tuesday	Sound waves
	Wednesday	Electromagnetic waves
	Thursday	**Midterm 1** **HW2 due**
Week 3	Monday	Reflection & refraction of light
	Tuesday	Geometric optics
	Wednesday	Multiple-lens systems
	Thursday	Optical instruments **HW3 due**
Week 4	Monday	Wave optics, interference
	Tuesday	Diffraction
	Wednesday	Intro to quantum mechanics
	Thursday	**Midterm 2** **HW4 due**
Week 5	Monday	Quantum mechanics and physics of atoms
	Tuesday	Nuclear physics
	Wednesday	Particle physics
	Thursday	Review for final exam **HW5 due**
	Friday	**Final Exam**