

Physics 20800 CC-CC4

Modern Physics for Engineers and Scientists

Spring 2009

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Class schedule: Lectures: M W 11-12:15 PM in MR3
 Recitation: F 11-11:50 AM in NA 1202

Office hours: M W 2-3 PM in Levich Institute, Steinman Hall ST1M-12

Textbook: *Physics for Scientists and Engineers*, 7nd Edition
 by Serway and Jewett. Vol 1 and 2.

TA office hours: MR 309. M: 3-4pm, TH: 1-2pm.
 TA: Mr. Yang Liu: yhvliuyang@gmail.com

Drop-in tutoring: Marshack MR308. Schedule posted in course web-site.

Syllabus:

<u>Date:</u>	<u>Reading assignment</u>	<u>Homework (solutions posted in web-site)</u>
Jan. 26(M)	CH 16 (1-6) Wave motion	CH 16: 1, 5, 18, 21, 24, 42, 43
Jan. 28(W)	CH 17 (1-4) Sound waves	CH 17: 2,4,8,11,18
Feb 2(M)	CH 18 (1-5) Standing waves	CH 18: 1,4,7,11,16,18,19,31,39
4(W)	CH 35 (1-8) Light and geometric optics	CH 35: 3,9,12,19,21,34,36
9(M)	CH 36 (1-4) Image formation	CH 36: 4,6,13,22,29,30,37
11(W)	CH 37 (1-6) Interference	CH 37:1,2,9,15,18,24,27
16(M)	College closed. President's Day	
18(W)	CH 38 (1-5) Diffraction	CH 38: 1,4,5,22,23,29,30
20(F)	1st Exam CH: 16-18 and CH 35-36	
23(M)	CH 38 Diffraction	

	25(W)	CH 23 (1-7) Electric field	CH 23: 5,7,14, 7,20,21,36,64
March	2(M)	CH 23 Electric field	CH 24: 1,2,3,5,6,9,10
	4(W)	CH 24 (1-3) Gauss Law	CH 24: 18,19,21,47,50,51
	9(M)	CH 24 Gauss Law	
	11(W)	CH 25 (1-6) Electric potential	CH 25: 1,3,4,11,14,15
	16(M)	CH 25 Electric Potential	
	18(W)	CH 26 (1-5) Capacitance	CH 26: 4,8,9,12,13,21,27,28
March	23(M)	CH 27 (1-6) Current and Resistance	CH 27: 1,8,12,13,23,30,33
March	25(W)	CH 27 Current and Resistance	
	30(M)	2nd Exam CH: 37-38 and CH: 23-25	
April	1(W)	CH 28 (1-4) DC Circuits	CH 28: 5,9,12,16,21,28
	6(M)	CH 29 (1-6) Magnetic field	CH 29: 1,4,14,17,26,30,35
	4/8 – 4/17	Spring Recess!	
	20(M)	CH 29 Magnetic Field	
	22(W)	3rd Exam CH 26-29	
	27(M)	CH 30 (1-7) Sources of B	CH 30: 1,2,5,17,18,25,33,35
	29(W)	CH 30 Sources of B	
May	4(M)	CH 31 (1-6) Faraday's Law	CH 31: 2,5,11,22,45,49
	6(W)	CH 31 Faraday's Law	

11(M)	CH 32 (1-6) Inductance	CH 32: 2,4,7,12,13,39,40,44
13(W)	CH 33 (1-8) AC circuits	CH 33: 2,6,8,13,18
15(F)	Final review	
16-22	Final Exam includes all the material covered in the lectures.	

Important Information for Physics 20800 students.

Reading assignment: This is the text material that will be covered in class each day. You should read the indicated material in the textbook before coming to class.

Homework: The homework is optional and it will not be collected in class. However, it is strongly recommended to do all the homework material.

Lab: All lab experiments must be done to pass the course.

Exams: There will be three midterm exams and one final exam (140 min.). The final exam will include all the material covered in the semester. **No make-ups will be given for the midterm exams under any circumstances.**

Two of the lowest grades of the midterms will be dropped and only the best midterm grade will be considered towards the final grade.

Make up will be given for the final examination only in case of fully documented illness.

Grades: Student performance will be based on the following components:

Best Midterm	40%
Final exam	60%

In the unlikely case that the student misses all the three midterms, then the final grade will consist of the grade in the Final Exam.

Extra help: Students can obtain extra help in this course by meeting with me either during my office hours or at other mutually agreeable times. A tutoring lab will be available in MR308. Schedule posted in course web-site.

Homework problems can be also discussed during with the Teaching Assistant office hours.