

Physics 20400 GH-GH3 Spring 2018

Instructor: Prof. Hernán A. Makse, Steinman Hall ST1M-12
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Web-site: <http://www-levich.engr.ccny.cuny.edu/webpage/hmake/teaching/>

Class schedule: M W 5:00-6:40 PM, in MR4

Office hours: Tu 4:00-6:00 PM in Levich Institute, Steinman Hall ST1M-12

Textbook: *Physics* by Cutnell and Johnson. Any edition. Vol 1 and 2.
Suggested problem numbers refer to 8th edition posted in the website of the course.

<u>Date:</u>	<u>Reading assignment</u>	<u>Suggested Problems</u>
		Numbering refers to 8th edition (7th ed) Problems and solutions posted in website
Jan. 29(M)	CH 16: Waves	CH 16: 14,26,29,28 (14,24,26,27)
Jan 31(W)	CH 16	
Feb 5(M)-7(W)	CH 17: Superposition	CH 17:8,7,29,33,41 (6,7,23,29,35)
12(M)	College close. Lincoln's Birthday	
14(W)	CH 18: Electric Force	CH18:21,72,35,37,71,25 (17,18,29,31,63,67)
19(M)	College close. President's Day	
20(Tu)	Monday schedule: CH 19	
21(W)	CH 19: Electric Potential	CH 19:19,21,27,39 (16,18,23,32)
26(M)	TEST 1: CH 16-19 (To be confirmed)	
28(W)	Ch 20: Electric circuits	
March 5(M)	CH 20: Electric circuits	CH 20:6,43,55,64,66,65,71 (7,43,53,58,60,61,65)
7(W)	CH 21	
12(M)-14	CH 21: Magnetic force	CH 21:1,7,15,23,78,39,47 (5,6,11,21,30,34,41)
19(M)-21	CH 22: Induction	CH 22:5,16,72,77,36,35,25 (5,16,18,23,30,31,69)
26(M)	CH 23: AC currents and CH 24: Electromagnetic waves	
28(W)	CH 25: Mirrors	CH 25: 38,5,23,37,40,38 (4,5,16,17,18,22)
April 30(F)-6(F)	SPRING BREAK	
9(M)	Test 2. CH 20-25 (to be confirmed)	
11(W)	Friday schedule	
16(M)	CH 26: Refraction	CH 26: 12,20,107,3 (11,18,27,28)
18(W)	CH 27: Interference	CH 27: 55,9,25,27,32 (2,7,19,22,27)
23-25	CH 28: Special Relativity	CH 28: 2,43,15,14,27,29,40 (2,9,12,14,24,27)
30(M)	Particles and waves	
May 2(W)	CH 29: Particles and waves	CH 29: 47,11,48,49,40 (7,8,24,28)
7(M)	Test 3. CH 26-29 (to be confirmed)	
9(W)	CH 30: Atoms	

14(M)	CH 30: Atoms	CH 30: 10,13,15,18,23,27,29 (10,12,14,16,21,23,26)
16(W)	Final Review	
18-24	Final Exam includes all the material covered in the lectures.	

Course description: For majors in the life sciences (biology, medicine, dentistry, psychology, physical therapy) and for liberal arts students. Fundamental ideas and laws of physics including: waves and sound, electricity and magnetism, optics, relativity, quantum mechanics and nuclear physics. Emphasis is on the basic principles and general laws. Use of math is restricted to algebra, geometry and trigonometry.

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

Homework: The homework is optional and it will not be collected in class. It is strongly recommended to do all the homework material. Problems and solutions are posted in the website of the course.

Lab: All lab experiments must be done to pass the course. Labs take place in MR 407 N. Confirm the exact room and start date at the Physics Department.

Exams: There will be three midterm exams and one final exam (140 min). The midterms exams and final exam will include only material covered in class. You are allowed to bring a sheet of paper (only one) with equations to the exams (midterms and final). This policy is subject to change during the semester and it will updated/cancelled as needed. The lowest grade of the midterms will be dropped.

No make-up will be given for any exam under any circumstances.

Grades: Student final grade will be based on the following components:

Best Midterm 1	30%
Best Midterm 2	30%
Final exam	40%

Extra help: A Tutoring will be available at the Science Division on MR403.