

## Physics 20400 DD-DD5 Spring 2017

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

**Class schedule:** M W 12:30-1:45 PM, F 12:30-1:20 PM in MR3

**Office hours:** W 2:30-3:30 PM in Levich Institute, Steinman Hall ST1M-12

**Textbook:** *Physics, ANY Edition*  
by Cutnell and Johnson. Vol 1 and 2

**TA office hours:** TBA

<b>Date:</b>	<b>Reading assignment</b>	<b>Suggested Problems</b>
<b>Numbering refers to 8<sup>th</sup> edition (7<sup>th</sup> ed) Problems and solutions posted in website</b>		
Jan. 30(M)	CH 16: Waves	CH 16: 14,26,29,28 (14,24,26,27)
Feb 1(W)	CH 16	
3(F)-8(W)	CH 17: Superposition	CH 17:8,7,29,33,41 (6,7,23,29,35)
10(F)	CH 18: Electric Force	
<b>13(M)</b>	<b>College close. Lincoln's Birthday</b>	
15(W)	Monday schedule. CH 18	
17(F)	CH 18: Electric Force	CH18:21,72,35,37,71,25 (17,18,29,31,63,67)
<b>20(M)</b>	<b>College close. President's Day</b>	
22(W)-24-27	CH 19: Electric Potential	CH 19:19,21,27,39 (16,18,23,32)
March 1(W)-3-6	CH 20: Electric circuits	CH 20:6,43,55,64,66,65,71 (7,43,53,58,60,61,65)
8(W)	<b>Test 1. CH: 16-19 (to be confirmed)</b>	
13(M)-15-17	CH 21: Magnetic force	CH 21:1,7,15,23,78,39,47 (5,6,11,21,30,34,41)
20(M)-22-24	CH 22: Induction	CH 22:5,16,72,77,36,35,25 (5,16,18,23,30,31,69)
27(M)	CH 23: AC currents and CH 24: Electromagnetic waves	
29(W)-31	CH 25: Mirrors	CH 25: 38,5,23,37,40,38 (4,5,16,17,18,22)
<b>April 3(M)</b>	CH 25: Mirrors	
5(W)-7	CH 26: Refraction	CH 26: 12,20,107,3 (11,18,27,28)
<b>10(M)-18</b>	<b>SPRING BREAK</b>	
<b>19(W)</b>	<b>Test 2. CH 20-25 (to be confirmed)</b>	
21(F)-24-26	CH 27: Interference	CH 27: 55,9,25,27,32 (2,7,19,22,27)
28(F)	CH 28: Special Relativity	CH 28: 2,43,15,14,27,29,40 (2,9,12,14,24,27)
May 1(M)-3	CH 28: Special Relativity	
5(F)	CH 29: Particles and waves	CH 29: 47,11,48,49,40 (7,8,24,28)
<b>8(M)</b>	<b>Test 3. CH 26-28 (to be confirmed)</b>	
10(W)	CH 29: Particles and waves	
12(W)-15	CH 30: Atoms	CH 30: 10,13,15,18,23,27,29 (10,12,14,16,21,23,26)
17(W)	Final Review	
<b>20-26</b>	<b>Final Exam includes all the material covered in the lectures.</b>	

**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. They start on Feb. 6. Confirm the exact 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 if 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/Recitation lab will be available at the Physics Dept starting on Feb 6. Please see schedule at the Physics Department. Homework problems can be also discussed with the Teaching Assistant during his/her office hours.

GOOD LUCK!