

# Physics 20400 DD-DD4

## Spring 2009

- Instructor:** Prof. Hernan A. Makse, Steinman Hall ST1M-12,  
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212-650-6847
- Web-site:** <http://lev.ccny.cuny.edu/~hmakse/TEACHING/teaching.html>
- Class schedule:** Lectures: M W 12:30-1:45 PM in MR3  
Recitation: F 12:30-1:20 PM in MR 3
- Office hours:** M W 2-3 PM in Levich Institute, Steinman Hall ST1M-12
- Textbook:** *Physics*, 7<sup>th</sup> Edition  
by Cutnell and Johnson. 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.

<u>Date:</u>	<u>Reading assignment</u>	<u>Homework (in parenthesis=8<sup>th</sup> Edition)</u> (solutions of homework posted in web-site) (* problems appearing only in 7 <sup>th</sup> Edition)
Jan. 26(M)	CH 16  Waves and sound	CH 16:7*,14,24,26,27 (14,26,29,28)
Jan. 28(W)	CH 17 Superposition	CH 17:6,7,23,24*,29,35 (8,7,29,33,41)
Feb 2(M)	CH 18 Electric force	CH 18:10*,17,18,29,31,63,67 (21,72,35,37,71,25)
4(W)	CH 18 Electric field	
9(M)	CH 19 Electric potential	CH 19:16,18,22*,23,32 (19,21,27,39)
11(W)	CH 19 Electric potential	
<b>16(M)</b>	<b>College closed. President's Day</b>	
18(W)	CH 20 Electric circuits	CH 20:7,43,53,58,60,61,65 (6,43,55,64,66,65,71)
<b>20(F)</b>	<b>1<sup>st</sup> Exam CH: 16-20</b>	

	23(M)	CH 21 Magnetic force	CH 21:5,6,11,19,21,30,34,41,54
	25(W)	CH 21 Magnetic field	
March	2(M)	CH 22 Electromagnetic induction	CH 22: 5,16,18,23,30,31,69
	4(W)	CH 23 AC currents	CH 23:4,12,19,24
	9(M)	CH 24 Electromagnetic waves	CH 24: 8,15
	11(W)	CH 25 Mirrors	CH 25: 4,5,16,17,18,22
	16(M)	CH 25 Mirrors	
	18(W)	CH 26 Refraction	CH 26: 11,18,27,28
March	23(M)	CH 26 Refraction	
March	25(W)	CH 27 Interference	CH 27: 2,4,7,10,19,22,25,27
	<b>30(M)</b>	<b>2<sup>nd</sup> Exam CH: 21-26</b>	
April	1(W)	CH 27 Interference	
	6(M)	CH 28 Special Relativity	CH 28:2,6,9,12,14,17,24,27,31
	<b>4/8 – 4/17</b>	<b>Spring Recess!</b>	
	20(M)	CH 28 Special Relativity	
	22(W)	<b>3<sup>rd</sup> Exam CH 26-29</b>	
	27(M)	CH 29 Particles and waves	CH 29: 7,8,16,24,25,28,32,31
	29(W)	CH 29 Particle and waves	
May	4(M)	CH 30 Atoms	CH 30: 10,12,14,16,18,21,23,26

6(W)	CH 30 Atoms	
11(M)	CH 31 Nuclear Physics	CH 31:2,14,18
13(W)	CH 31 Nuclear Physics	
15(F)	Final review	
16-22	<b>Final Exam includes all the material covered in the lectures.</b>	

### **Important Information for Physics 20400 students.**

**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 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. Please see schedule in the course web-site.

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