

Physics 20300 LM, LM2, LM3 Spring 2020

Instructor: Prof. Hernan A. Makse, Steinman Hall ST1M-12,
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Web-site: <http://hmakse.ccny.cuny.edu>
Class schedule: Tu Th 10AM – 11:40AM in MR1
Office hours: Tu - Th 4:00–5:00 PM in Levich Institute, Steinman Hall ST1M-12
Textbook: *Physics*, Any edition by Cutnell and Johnson. Vol 1
 Homework numbers refer to 8th edition posted in website
TA: TBA

Date:	Reading assignment	Homework (solutions in web-site) Numbering refers to 8th edition
Jan 28(Tu) 30(Th)	CH 2: Kinematics in 1D CH 2	CH2: 8, 12, 20, 29, 34 43, 46, 86
Feb 4(Tu) 6(Th) 11(Tu) 13(Th) 18(Tu) 20 (Th) 25(Tu) 27(Th)	CH 3: Kinematics in 2D CH 3: Kinematics in 2D CH 4: Newton CH 4: Newton CH 4 CH 5: Circular Motion CH 5 CH 6: Work and Energy	CH 3: 4, 39, 47 75, 77 CH 4: 11, 46, 54, 71, 73, 76, 98, 106, 109 CH 5: 23, 32, 52, 56 CH 6: 40, 44 45, 47, 53, 81
Mar 3(Tu) 5(Th) 10(Tu) 12(Th) 17(Tu) 19(Th) 24(Tu) 26(Th)	CH 6 CH 7: Impulse CH 7 CH 8: Rotational Kinematics TEST 1: CH 2-6 CH 9: Rotational Dynamics CH 9 CH 10: Harmonic motion	CH 7: 13, 23, 25, 34, 38 CH 8: 9, 11, 13, 25, 34 CH 9: 5, 12, 19, 22, 25, 27 CH 10: 9, 18, 29, 30, 33, 36, 82, 83
April 31(Tu) 2(Th) 7(Tu) 9(Th) 14(Tu) 16(Th) 21(Tu) 23(Th) 28(Tu) 30(Th)	CH 10 CH 11: Fluids No class. Wednesday schedule SPRING BREAK (April 8-16) SPRING BREAK SPRING BREAK TEST 2: CH 7-10 CH 11: Fluids CH 12: Temperature CH 13 Heat	CH 11: 14, 24, 27, 60, 61, 69, 71, 100 CH 12: 19, 57, 60, 67, 69, 96 CH 13: 8, 13, 23, 25, 39
May 5(Tu) 7(Th)	CH 14: Ideal Gas CH 15: Thermodynamics	CH 14: 9, 14, 23, 26 CH 15: 13, 28, 29, 31

12(Tu) **Test 3. CH 11-14 (to be confirmed)**
14(Th) Last day: Final Review

18--22 **Final Exam includes all the material covered in the lectures**

Course description: PHYS 20300 General Physics I: For majors in the life sciences (biology, medicine, dentistry, psychology, physical therapy) and for liberal arts students. Algebra based introductory physics course covering: kinematics, Newton's laws, equilibrium, gravitation, work and energy, impulse and momentum, rotation and angular momentum, simple harmonic motion, fluids, heat, and thermodynamics. Use of mathematics is restricted to elementary algebra and some trigonometry. PHYS 20300 required for Premed, Pre-dent., Bio-Med., and all Life Science students. Prereq.: MATH 19500.

Reading assignment: Students should read the indicated Chapters in the textbook before coming to class.

Homework: The homework is optional. It is strongly recommended to do all the homework material. Problems and solutions are posted in website of the course.

Lab: All lab experiments must be done to pass the course. Labs take place in MR 407 N. Confirm start date at the Physics Department. Seven labs involve experiments. The rest are workshops. Attendance is required at all meetings.

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. You are allowed to bring a sheet of paper with equations to the exams (midterms and final). This policy is subject to change during the semester and it could be updated/cancelled. The lowest grade of the midterms will be dropped.

No make-up will be given for any exam under any circumstances. If you miss one exam, you will automatically drop the missed exam. If you miss two exams, you will be able to pass by doing well in the third exam and final.

Final grade: A+=100-96.67, A=96.66-93.37, A-=93.33-90, and so on.

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

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

If you are a student with a disability who requires accommodations and services, please visit NAC 1/218. It is required that faculty receive an official accommodation memo from the student before the exam to proceed to implement accommodations for a given exam.