

Physics 20300 LM, LM2, LM3, LM4

Spring 2021

Instructor: Prof. Hernán A. Makse, Steinman Hall ST1M-12,
hmakse@ccny.cuny.edu

Web-site: <http://hmakse.ccny.cuny.edu/teaching>

Class schedule: Tu Th 10AM – 11:40AM in BlackBoard - Online

Office hours: Tu - Th 4:00–5:00 PM in BlackBoard - Online

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 website)
		Numbering refers to 8th edition
Feb	2(Tu)	CH 2: Kinematics in 1D
	4(Th)	CH 2: Kinematics in 1D
	9(Tu)	CH 3: Kinematics in 2D
	11(Th)	CH 3: Kinematics in 2D
	16(Tu)	CH 4: Newton
	18(Th)	CH 4: Newton
	23(Tu)	CH 4: Newton
	25(Th)	CH 5: Circular Motion
		CH 2: 8, 12, 20, 29, 34 43, 46, 86
		CH 3: 4, 39, 47 75, 77
		CH 4: 11, 46, 54, 71, 73, 76, 98, 106, 109
		CH 5: 23, 32, 52, 56
Mar	2(Tu)	CH 5: Circular Motion
	4(Th)	CH 6: Work and Energy
	9(Tu)	CH 6: Work and Energy
	11(Th)	CH 7: Impulse
	16(Tu)	CH 7: Impulse
	18(Th)	CH 8: Rotational Kinematics
	23(Tu)	CH 8: Rotational Kinematics
	25(Th)	MIDTERM: CH 2-6
	30(Tu)	SPRING BREAK (March 27 – April 4)
Apr	1(Th)	SPRING BREAK (March 27 – April 4)
	6(Tu)	CH 9: Rotational Dynamics
	8(Th)	CH 9: Rotational Dynamics
	13(Tu)	CH 10: Harmonic motion
	15(Th)	CH 10: Harmonic motion
	20(Tu)	CH 11: Fluids
	22(Th)	CH 11: Fluids
	27(Tu)	CH 12: Temperature
	29(Th)	CH 12: Temperature
		CH 9: 5, 12, 19, 22, 25, 27
		CH 10: 9, 18, 29, 30, 33, 36, 82, 83
		CH 11: 14, 24, 27, 60, 61, 69, 71, 100
		CH 12: 19, 57, 60, 67, 69, 96
May	4(Tu)	CH 13 Heat
	6(Th)	CH 14: Ideal Gas
	11(Tu)	CH 15: Thermodynamics
	13(Th)	Last day: Final Review
		CH 13: 8, 13, 23, 25, 39
		CH 14: 9, 14, 23, 26
		CH 15: 13, 28, 29, 31

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, Predent., 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 (and old exams for practice) are posted in the website of the course.

Lab: All 7 lab experiments must be done to pass the course. Labs will take place online. Confirm start date at the Physics Department. Workshops are also offered. Attendance is required at labs and workshops.

Exams: There will be one midterm exam (1hr 40min) and one final exam (140 min). Final grade: A+=100-96.66, A=96.66-93.33, A-=93.33-90, B+=90-86.66, B=86.66-83.33, B-=83.33-80, C+=80-76.66, C=76.66-73.33, C-=73.33-70, D=70 – 60, F= >60.

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

Midterm 1	40%
Final exam	60%

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. Students enrolling in this course should be aware that the instructor may choose to require your computer's camera on during examinations and may choose to use proctoring software during exams.