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| **Course:** | **Physics 20300 ST Fall 2022 (Syllabus)** |
| **Instructor:** | Prof. Hernán A. Makse, Steinman Hall ST1M-12<br>hmakse@ccny.cuny.edu |
| **Web-site:** | https://hmakse.ccny.cuny.edu/teaching |
| **Class schedule:** | Tu and Th 5PM – 6:40PM in MR1 |
| **Office hours:** | Tu and Th 4:00PM – 5:00 PM at Levich Institute, Steinman Hall ST1M-12 |
| **Textbook:** | *Physics*, Any edition by Cutnell and Johnson. Vol 1<br>Homework numbers refer to 8th edition posted in website |
| **Grader:** | Shah Faisal, smazhar@gradcenter.cuny.edu, Aakash Marthandan, amarthandan@gradcenter.cuny.edu, |

| **Date**: | **Reading assignment** | **Homework (solutions in web-site) Numbering refers to 8th edition** |
|---|---|---|
| August | | |
| 25(Th) | CH 2: Kinenematics in 1D | CH2: 8, 12, 20 , 29, 34 43, 46, 86 |
| 30(Tu) | CH 2 | |
| September | | |
| 1(Th) | CH 3: Kinematics in 2D | CH 3: 4, 39, 47, 75, 77 |
| 6(Tu) | CH 3: Kinemaics in 2D | |
| 8(Th) | CH 4: Newton | |
| 13(Tu) | CH 4: Newton | CH 4: 11, 46, 54, 71, 73, 76, 98, 106, 109 |
| 15(Th) | CH 4 | |
| 20 (Tu) | CH 5: Circular Motion | CH 5: 23, 32, 52, 56 |
| 22(Th) | CH 5 | |
| 27(Tu) | **No classes scheduled** | |
| 29(Th) | **No class: Monday schedule** | |
| October | | |
| 4(Tu) | **No classes scheduled** | |
| **6(Th)** | **TEST 1: CH 2-5** | |
| 11(Tu) | CH 6: Work and Energy | CH 6: 40, 44 45, 47, 53, 81 |
| 13(Th) | CH 6 | |
| 18(Tu) | CH 7: Impulse | CH 7:13, 23, 25, 34, 38 |
| 20(Th) | CH 7 | |
| 25(Tu) | CH 8: Rotational Kinematics | CH 8: 9, 11, 13, 25, 34 |
| 27(Th) | CH 9: Rotational Dynamics | CH 9: 5, 12, 19, 22, 25, 27 |
| November | | |
| 1(Tu) | CH 9 | |
| **3(Th)** | **TEST 2:CH 6-9** | |
| 8(Tu) | CH 10: Harmonic motion | CH 10: 9, 18, 29, 30, 33, 36, 82, 83 |
| 10(Th) | CH 10 | |
| 15(Tu) | CH 11: Fluids | CH 11: 14, 24, 27, 60, 61, 69, 71, 100 |
| 17(Th) | CH 11 | |

| **Date**: | **Reading assignment** | **Homework (solutions in web-site) Numbering refers to 8th edition** |
|---|---|---|
| 22(Tu) | CH 12: Temperature | CH 12: 19, 57, 60, 67, 69, 96 |
| 24(Th) | **No classes** | |
| 29(Tu) | CH 12 | |
| December | | |
| 1(Th) | CH 13 Heat | CH 13: 8, 13, 23, 25, 39 |
| 6(Tu) | CH 14: Ideal Gas | CH 14: 9, 14, 23, 26 |
| **8(Th)** | **Test 3. CH 10-14** | |
| 13(Tu) | Last day: Final Review | |
| **15—21** | **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, 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 are posted in website of the course.

**Lab:** All 7 lab experiments must be done to pass the course. Labs take place in MR 407N. Confirm start date at the Physics Department.

**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, and is show to faculty official accommodation memo before the exam to proceed to implement accommodations for a given exam.