

The City College of New York
Prof. Alexander Raspopin
Department of Physics
Fall 2022
Physics 20300

Prof. A.Raspopin: araspopin@ccny.cuny.edu

Required text: *Physics*, 11th ed. by Cutnell & Johnson (Wiley)

Course Descriptions

PHYS 20300 General Physics I, is an algebra based introductory physics course covering: vectors, kinematics, Newton's laws, equilibrium, gravitation, motion in a plane, work and energy, impulse and momentum, rotation and angular momentum, simple harmonic motion, fluids, heat, and thermodynamics. It is a course appropriate for students majoring in the life sciences (biology, medicine, dentistry, psychology, physical therapy) and for liberal arts students. Use of mathematics is restricted to elementary algebra and some trigonometry. PHYS 20300 is required for Premed, Predent., Bio-Med., and all Life Science students:

Topics Covered:

1. Introduction to Mathematical Concepts. Vectors.
2. Kinematics in One Dimension.
3. Kinematics in Two Dimensions.
4. Forces and Newton's Laws of Motion.
5. Dynamics of Uniform Circular Motion.

EXAM I

6. Work and Energy.
7. Impulse and Momentum.
8. Rotational Kinematics.
9. Rotational Dynamics

EXAM II

10. Simple Harmonic Motion.
11. Fluids.

12. Temperature and Heat.

13. Heat Transfer.

14. The Ideal Gas Law and Kinetic Theory

FINAL EXAM

Assessment Tools

1. Attendance

2. WileyPlus homework assignments (10%)

Flyers with WileyPlus registration information for each section will be posted on Blackboard Content. Homework will be assigned on a weekly basis.

Selected homework problems will be discussed and solved during recitations.

3. Lab and lab reports (10%).

4. Class participation.

5. Two midterm exams and the final exam (80%). Each midterm exam is 20%, and the final exam is 40% of the total grade.

GRADING out of maximum 100
points:

100.0 - 93.0 = A

092.9 - 90.0 = A-

089.9 - 87.0 = B+

086.9 - 83.0 = B

082.9 - 80.0 = B-

079.9 - 77.0 = C+

076.9 - 70.0 = C

069.9 - 60.0 = D

059.9 and below = F

Academic Integrity: Academic dishonesty is prohibited in the City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion.

The CUNY's policy on plagiarism:

This policy defines cheating as “the unauthorized use or attempted use of material, information, notes, study aids, devices or communication during an academic exercise.” The CUNY Policy on plagiarism says the following about plagiarism (the CUNY Policy can be found in Appendix B.3 of the CCNY Undergraduate Bulletin 2007 -2009)

Plagiarism is the act of presenting another person's ideas, research or writings as your own. The following are some examples of plagiarism, but by no means is it an exhaustive list:

1. Copying another person's actual words without the use of quotation marks and footnotes attributing the words to their source.
2. Presenting another person's ideas or theories in your own words without acknowledging the source.
3. Using information that is not common knowledge without acknowledging the source.
4. Failing to acknowledge collaborators on homework and laboratory assignments.
5. Internet plagiarism includes submitting downloaded term papers or parts of term papers, paraphrasing or copying information from the internet without citing the source, and “cutting and pasting” from various sources without proper attribution.

The City College Faculty Senate has approved a procedure for addressing violations of academic integrity, which can also be found in Appendix B.3 of the CCNY Undergraduate Bulletin.”