

Physics 120**Algebra-based Introductory Physics II - Syllabus****Course Information**

Physics 120, Section 02: 3 hours lecture, 2 hours lab and 1 hour recitation, 4.5 Credits
 Monday 7 PM -8:15 PM, Wednesday 7 PM - 8:15 PM and 8:30 PM - 9:15 PM
 Additional information on Blackboard.

Contact Information

Dr. Tan-Na Lee tl2286@hunter.cuny.edu
 Office hours: By appointments only

Course Materials

Required texts: Physics: Principles with Applications 7th Edition, Douglas C. Giancoli, **ISBN-13:** 978-0321625922

Required manual: Physics Lab Manual, Department of Physics and Astronomy

Lecture notes: PDF format on Blackboard

Instructional technologies: Blackboard, Weekly homework assignments via MasteringPhysics

Materials on reserve in the library: Principles with Applications 7th Edition, Douglas C. Giancoli.

Course Description

Physics 120 is the second semester of a two semester introductory physics course without calculus. It covers Electrostatics, Current and electric circuits, Magnetism, Electromagnetic Induction and Electromagnetic Waves, Geometrical Optics and Optical Instruments, The wave nature of Light, Interference, Diffraction and Polarization, Special Relativity, Modern Physics and Quantum Theory.

Pre-requisites: Physics 110, Math 125,

Teaching philosophy & approach: Fundamental physical principles are introduced and the concepts are further developed and reinforced through examples, applications and problem solving.

Learning Outcomes:

Learn the fundamental laws of physics pertaining to electricity and magnetism, light and atomic physics

Apply these laws to various physical systems via problem solving.

Perform experiments, collaborate with a lab partner, collect data, perform error/statistical analysis of data, write a lab report.

Develop the skill of casting word problems into mathematically and solve them.

Grading Method & Scale

The grading is described in the table below.

5 best from 6 Quizzes	65%
Online homework	10%
Class Participation	10%

Lab: Mandatory (Cannot get a grade for the course without it)

15%

100%

The exam questions are multiple choice types!

Homework

The Homework sets have a due date! Make sure you complete the homework before the due date.

Laboratories

1.The lab is 15% of the total grade.

Attendance

In addition to the lecture important information regarding exams, quizzes, homework, schedule etc. is communicated during class

Credit/No Credit Grading Option

You may choose to be graded in this course on a Credit/No Credit basis. Before selecting this option, check with your departmental adviser and be aware that many colleges, professional schools, and employers may look with disfavor on Credit/No Credit grades and may even convert Credit to C and No Credit to F for their purposes, as described in the Hunter Catalog.

Course Calendar & Content

Week	Chapter	Sections omitted	Homework
1	16: Charge and Electric fields	16.11	12, 13, 31, 33, 36, 37, 39, 42, 50, 64
2	17: Electric Potential	17.10, 17.11	10, 21, 23, 26, 34, 39, 50, 72, 75, 81, 85

3	18: Electric Currents	18.8 - 18.9	5, 6, 21, 34, 39, 45, 50, 60, 73, 75
4	19: DC Circuits	19.7, 19.8	6, 11, 17, 28, 30, 44, 51, 54, 88, 93
5	20: Magnetism	20.11 - 20.12	8, 11, 12, 18, 19, 31, 41, 45, 54, 75, 86, 89
6	21: Induction	21.6, 21.8, 21.12 -21.15	1-4, 7, 11, 12, 14, 21, 34, 42, 48
7	22: EM waves	22.6, 22.7	1, 2, 7, 9, 21, 23, 42, 43
8	23: Light: Geometric Optics		3, 4, 11, 15, 31, 32, 38, 52, 53, 59, 62, 67, 72
9	24: Wave Nature of Light	24.7, 24.9, 24.11-12	5, 7, 10, 23, 26, 27, 30, 34, 35, 43, 71, 79
10	25: Optical Instruments	25.6, 25.10	24, 25, 32, 33, 42, 44, 71
11	26: Special relativity	26. 6	7, 8, 10, 13, 17, 18, 27, 30, 36, 45, 48, 49, 52, 54, 61, 64
12	27: Early Quantum theory		18, 19, 20, 21, 27, 41, 45, 57, 60, 69, 82, 86
13	28: Quantum Mechanics	28.4, 28.9 - 28.12	2, 4, 8, 13, 16, 21, 22, 41, 50, 51, 56

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Hunter College Policy on Academic Integrity

"Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of

intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures."

ADA Policy (AccessABILITY)

"In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212) 772- 4857 or (212) 650-3230."

Hunter College Policy on Sexual Misconduct

"In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).

b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

Syllabus Change Policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice. Students are expected to find out about changes to the syllabus via Blackboard, class attendance or email.