

# Physics 120 Syllabus Hunter College of CUNY

**Instructor: Professor Levy**

**Email: [ml5468@hunter.cuny.edu](mailto:ml5468@hunter.cuny.edu)**

**Office Hours: Wednesday 1-2, and Friday 11:45-12:45; in Prof. Levy's classroom]**

**Suggested textbook: Physics: Principles With Applications 7th Edition, Giancoli,**

Mastering Physics with Pearson eText -- ValuePack Access Card ISBN 13- 9780321909770.

**Homework Assignments: Through Mastering Physics**

## Course Description

This 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.

## Textbook

Physics: Principles With Applications 7th Edition, Giancoli

## Mathematics Pre-requisite

Algebra, geometry, and trigonometry are prerequisites of Physics 120.

## Attendance

Attendance is required: In addition to the lecture important information regarding exams, homework, schedule ect. is communicated during class

## Homework

1. Homework assigned via MasteringPhysics, one point for each question. One sixth of the lowest homework results are dropped before the homework score is tabulated into your course grade
2. The Home work sets have a due date.
3. No make ups. Late work will not be graded.

## Laboratories

1. The lab is an essential part of the course.
2. The lab is 15% of the total grade.
3. Students must complete a minimum of 9 labs out of 11 to get a lab grade. If a student completes less than 9 labs, he/she will receive a zero for the missing lab(s).

4. The final lab scores are based on the lab reports and in-class performance.
5. Students who repeat the course must repeat the lab.

## Exams

1. All exams are pop quizzes! Each question is worth one point. One sixth of the lowest pop-quiz results are dropped before the exam score is tabulated into your course grade.
2. You will not receive advanced notice before an exam.
3. You have to be ready to take the exam any time during the scheduled class time.
4. **No makeup exam! Late work will not be graded.**

## Course grade

The grading is described in the table bellow.

Exams	65%
Homework	20%
Lab	15%
Total	100%

## 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.

## 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 Procedure

## Accessibility

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 1214 B East building to secure necessary academic accommodations.

Hunter College does not discriminate against any student on the basis of pregnancy or related conditions. Absences due to medical conditions relating to pregnancy will be excused for as long as deemed medically necessary by a student's doctor and students will be given the opportunity to make

up missed work. Students needing assistance can seek accommodations from the Office of AccessABILITY

## Tentative Lecture and Exam Schedule

**Students are expected to do the assigned reading before coming to the lecture!**

Week	Chapter	Sections omitted	Homework
1	16: Charge and Electric fields	16.10 - 16.12	13, 31, 33, 36, 64
2	17: Electric Potential	17.6, 17.10, 17.11	10, 19, 21, 23, 50, 72, 75
3	18: Electric Currents	18.8 - 18.10	5, 6, 21, 34, 39, 45, 63
4	19: DC Circuits	19.7, 19.8	6, 11, 17, 25, 30, 44, 51
		<b>Midterm Exam I</b>	
5	20: Magnetism	20.10 - 20.12	8, 11, 12, 18, 19, 41, 45, 75, 86
6	21: Electromagnetic Induction	21.6, 21.8, 21.12 – 21.14	1-4, 7, 11, 12, 14, 21, 34, 42, 48
7	22: EM waves	22.6, 22.7	21, 23, 42, 43
8	23: Light, Geometric Optics	23.10	3, 4, 11, 15, 31, 32, 38, 52, 53, 59, 62, 72
9	24: Wave Nature of Light	24.7 – 24.9, 24.11, 24.12	5, 7, 10, 23, 26, 27, 30, 34, 35, 43, 71, 79
10	25: Optical Instruments	25.1, 25.2, 25.6 – 25.12	24, 25, 32, 33, 42, 44, 71
		<b>Midterm Exam II</b>	
11	26: Special relativity	11.5 - 11.6, 11.13 - 11.15	7, 8, 10, 13, 17, 18, 27, 30, 36, 45, 48, 49, 52, 54, 61, 64
12	27: Early Quantum theory	27.5 – 27.7, 27.9	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
		<b>Cumulative Exam</b>	

## The Test Security and Fairness Policies

These policies are designed to give you a standardized, fair, and equitable opportunity and to prevent anyone from gaining an unfair advantage in the examinations. The policies are consistent with those commonly adopted by major nation-wide testing services.

5. Bring your Hunter ID card, your own pencils or pens, erasers, and calculators. **You will not be allowed to borrow or share these tools during examination.**

6. Late arrival - You may be denied taking the text if you are more than five minutes late.

7. Your instructor may reassign or separate your seats.

4. There should be no communication with adjacent students during examination.

**If you are found communicating with neighbors for whatever reasons, you will be ejected and receive a zero for the test.**

5. Phone and Electronic Device - All devices must be turned off and stored away, and not easily accessible. Prohibited devices include, but are not limited to:

- Cell phones or smartphones

- Watches, digital watches or iWatches

- Headphones, AirPods or earbuds

- Audio players/recorders, tablets, laptops, notebooks, Google Glass, or any other personal computing devices

- Separate timers of any type

- Cameras or any other photographic equipment

- Any devices that can be used to record, transmit, receive, or play back audio, photographic, text, or video content

**If you are found in possession of prohibited devices in your hands, on your ears, in the pockets or on the wrists, whether the devices are active or not, you will be ejected and receive a zero for the test.**

6. No Restroom trips

Prepare not to use the restroom during the entire length of examination. Go to the restroom right before the examination.

If you must go to the restroom for medical reasons, submit a doctor's note in advance so that a special proctor can be arranged for you.

Physics 110/120 Laboratory Policy  
(The policy supersedes previous announcements and postings.)

**No food and drink are permitted in the laboratory.**

The lab manuals can be downloaded from <http://www.hunter.cuny.edu/physics/course-list>

Do not start the experiment unless the instructor gives you permission to do so.

The lab grade will be based on the average of 10 best lab reports (80%) and instructors' evaluation of students' performance (20%). This grade is then reported to your lecturer for inclusion in the final course grade (15% weight factor). If a student completes less than 10 experiments, the missing scores are counted as zero in the average.

The lab manuals may be purchased at Shakspeare Bookstore on Lexington Avenue between East 68<sup>th</sup> Street and East 69<sup>th</sup> Street.

The data sheets must be signed by the instructor at the end of each session. Reports without instructor's signature will not be accepted.

At the end of the semester, students can make up one missed experiment.

The list below will give you an idea of the criteria used by your lab instructor in grading your lab report:

4. Quality of measurements. Logical presentation of report contents.
5. Accuracy and correctness of calculations resulting from proper use of data and completion of calculations.
6. Orderly and logical presentation of data in tabular form, where appropriate.
7. Good-looking graphs, easiness to read, good choice of scales and labels.
8. Comparison with theory.
9. Answers to Questions; Conclusions.
10. Clarity, Neatness, Promptness.

**The lab reports are due at the next session. The penalty for late submission up to one week is 20%. No report will be accepted after one week.**

The schedule of experiments for the semester is posted in the laboratory.