PHY 167: INTRODUCTORY PHYSICS – Spring 2024

If you are not feeling well, please stay home. If you have tested positive for COVID-19, please contact the Health Center at med.requirements@lehman.cuny.edu as soon as possible after your positive test result to initiate contact tracing and to get connected to support services.

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Detailed description of this course and other useful materials are available at professor's web site: http://www.lehman.edu/faculty/dgaranin

What is needed:

1) Textbook: *Physics, Principles with Applications*, by D. Giancoli (7th edition)

2) Online Home Work System: Mastering Physics (http://masteringphysics.com, see the course code at professor's web site)

You can by a new textbook with Mastering Physics (http://www.amazon.com/Physics-Principles-Applications-MasteringPhysics-6th/dp/0321569830/ref=sr_1_4?ie=UTF8&qid=1296399380&sr=8-4) for about $100 or buy a used textbook (even an older edition) and separately buy the mastering physics access for PHY166 and PHY167 on the mastering physics web site (about $60). The second variant is cheaper.

PHY166/168 and 167/169 are being taught during one semester as the first part of the two-semester course of the Introductory Physics (the first 15 chapters in the Giancoli book). PHY167 and PHY169 is the second part of this course (Chapter 16 and up), taught during another semester.

PHY166 and PHY167 is the algebra-based course (without calculus) for the majority of the students. PHY168 and PHY169 is the calculus based course for pre-engineering students and physics majors.

Be assured that mastering elementary algebra is an absolute requirement. Physics is about formulas, not about numbers. Problems in Midterms and the Final have to be solved algebraically and the formula for the solution must be obtained. Only after that, input numbers (if any) can be substituted into this formula. Failing to do so results in the loss of points.

The course contains a lecture/demonstration/discussion session (two classes, 4 hours weekly) and a laboratory session (1 lab, 2 hours weekly). Class participation is an essential component of the course, attendance will be checked.

In particular, attendance at the weekly lab and turning in a satisfactory lab report on time is required for a grade in the course. Lab reports are due at the beginning of the next lab session. Students missing more than two labs will receive grade F for the course. If you missed a lab, try to make up for it during the same week, before the lab setup has been dismantled.

Course objectives:

Upon completion of the course, students should be able to

- State and use appropriate concepts to solve problems in Introductory Physics
- Analyze and solve quantitative physics problems using algebra and trigonometry
- Use experimental apparatus to collect data
- Work as a team to analyze experimental data
- Prepare well-written lab reports in an appropriate format

Exams and grading:

There will be three midterm exams and a final. The final exam will be cumulative. There will be no makeup exams, except for documented emergency. You will be earning points for the following:

Midterm exams:	15 + 15 + 15 = 45 (max) (5 problems, 3 points each)
Final exam:	25 (max) (5 problems, 5 points each)
Homework:	10 (max)
Labs:	20 (max)
Total:	100 (max).

There will be no dropping lowest grades and "curving". At the end the points will be converted into grades A, B, C, etc. according to the zone principle (say, A is 100-80 points, etc.). The zones are not fixed but will be chosen appropriately at the end of the semester.

Midterms and the final are open-book. It is not allowed to use cell phones, however, since it is very easy to make a photo of your work and send it to other students. Your work is individual and it is illegal to share it. Identical solutions provided by groups of students are easily detectable and they are labelled as plagiarism. Plagiarism is punishable by taking off points and in some cases can be reported to the administration. If you have found a solution of a problem in a book, it would be plagiarism to copy it 1:1. You have to provide your own version of the solution around the same idea.

Schedule of midterm tests (tentative):

Midterm Test 1:	Mo, March 4
Midterm Test 2:	We, April 3
Midterm Test 3:	Mo, May 13

Grading grid (amounts of points needed for different grades):

A >= 80

A- >= 78

B+ >= 76

B >= 70

B- > =68

C+ >= 66

C >= 60

C- > =58

D+ >= 56

D >= 50