## LaGuardia Community College, City University of New York Natural Sciences Department

## SCP 202 Fundamentals of Physics II, Syllabus – Spring 2021

Instructor Chandra Nepali Phone

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Office Hours MoWe 3-4 pm Office:

Lectures: Tuesday 5:45-9:05pm Classroom: zoom (see BB for zoom info)

Thursday 5:45-6:45pm Classroom: zoom

Laboratory: Thursday 6:55-9:05pm Classroom: zoom

**Textbook (required):** Free OpenStax College Physics textbook:

https://openstax.org/details/books/college-physics ISBN-10: 1-947172-01-8, ISBN-10: 1938168003

**Textbook (optional):** "Physics", Douglas C. Giancoli, (Addison-Wesley) 7th Edition, 2013.

ISBN: 9780321762429

**Description:** This is the second part of a 2-term algebra-based Physics sequence. Among the subjects covered are wave motion, electric charge, electric field and electric potential, magnetic field, generators, motors, and transformers. In addition, selected topics in the Einstein's theory of relativity and quantum mechanics will be discussed. The aim of the course, together with SCP201, is to provide the student with a firm grounding of the basic laws and principles that govern the behavior of matter.

Prerequisite: SCP201

**Evaluation:** The grade in this course will be based on the 3 exams (60 points), homeworks (30 points), laboratories and special assignments (10 points). Exams and homework will be hard. Expect an average between 50% and 75% for each exam. **There is NO extra credit available.** 

Exams 60 points
Homework assignments 30 points
Laboratories 10 points
Total 100 points

Letter grades will be determined by your instructor so you should ask him for details regarding what

percentages are required for a specific letter grade.

**Calculators:** You are allowed to use scientific and graphing calculators for solving problems in this class, which includes exams. The calculator, however, is not permitted to have an internet connection or have a purpose other than that of performing calculations: TI-89 is fine to use. In addition, cell phones and tablets are not allowed during exams.

**Homework:** 11 homework assignments will be distributed on-line using MyOpenMath platform. The deadline for getting help from me is on Friday 16:00. Except for certain weeks the <u>absolute</u> deadline for submitting answers is 11:59 PM Sunday. Needless to say, the <u>absolute</u> deadline on Sunday at <u>one</u> <u>minute</u> before midnight (plus or minus 5 minutes) is <u>absolute</u>. No excuses are accepted. Please check the class calendar for a detailed schedule of this course, including homework deadlines and exams.

Go to myopenmath.com and open your student account (free). Make sure to use your valid email address. Then, register to this course by using following information:

Link: myopenmath.com
The course ID: 105729

The enrollment key: physics-S2021

<u>Suggestion:</u> Do not wait until the last day to do your homework. It is not a good strategy to wait for the weekend to do your homework. I emphasize that is important that you develop the ability of coming up with an answer <u>by yourself</u>. The purpose of the homework is that you learn and practice, not that you earn points! It is also a good idea to review those questions/problems that you did wrong in the homework (if any) to understand what went wrong. Knowing all the answers does not guarantee a good performance in the exams.

**MyOpenMath:** You will submit your solutions to the problems over the Internet. The MyOpenMath system gives you instant feedback, telling you whether your answers are correct. If not, MyOpenMath allows you to try again without penalty, up to a certain limit set for each problem (usually 15).

**Logging on:** All you need is an Internet connection and your favorite web-browser (Safari, IE, Firefox, etc.) There are many computers located all over campus you may use. Many of you also have Internet access from your apartment.

**Exams:** There will be tho midterm exams and one final <u>noncumulative</u> exam:

Exam 1: April 15<sup>th</sup> (Thursday)
Exam 2: May 20<sup>th</sup> (Thursday)

• **Final exam:** June 15<sup>th</sup> (Tuesday)

Please note that <u>no make-up exams</u> will be given. If legitimate circumstances (as judged by me) cause you to miss one of the first three exams, <u>and you notify me</u> (or leave a message at the Natural Sciences Department Office, M-204) of your predicament, then this missed exam will be counted according to your average performance on other tests. Even under these strict conditions, you can miss only one midterm exam. In addition, all students must take the final exam in order to pass this course. Calculators may be used but <u>not shared</u> during the exams. However, phone calculators may not be used. You may bring <u>one</u> 3" x 5" index card to each exam. All exams will consist of <u>15-20 questions</u>. Both quantitative and qualitative questions will be asked. Each exam will be worth about 20% of your final grade. <u>Again</u>, exams will be hard. Practice, practice,

Laboratory and Invited talk: Laboratory instructions will be available online on blackboard unless otherwise noted. They will be made available to you before the Laboratory meeting and it is highly recommended that you familiarize yourself with the experiment BEFORE you go to lab. Students must complete and hand in all reports. Please note that 4 points out of 10 are reserved for **special** assignments, for which you will be asked to attend an invited talk (or read a scientific article) and write a 2-pages reflection. The specific dates for the talk and the instructions for your reflections will be provided by the instructor separately. Although laboratory and reflection counts only 10% of the grade, a student cannot receive a passing grade without completing all the requirements.

**Course Schedule:** Please check the class calendar.

**Office Hours:** I will be happy to help you during my office hours. Please try to respect office hours as much as possible. Office hours may change depending upon your convenience and my own.

**Academic Integrity Policy:** Instructors of this course are required to implement the College Policy regarding cheating on examinations and quizzes. A complete statement of the policy is available at the student counseling services.

**Attendance Policy:** Attendance at all class sessions, lecture and laboratory, it is essential for proper understanding and mastery of the course material. Being in class on time is as important as attending the class.

**Final Words:** Physics is not an easy subject for most students. In addition, you will find this course to be very fast paced. This is necessary to complete all the material. Please be aware of the following:

- It is easy to fall behind in physics but very hard to catch up. As a result, it is impossible to cram for a physics test. You must keep up with homework assignments and class lectures.
- Physics is a cumulative discipline. You must understand Chapter 2 before moving onto Chapter 3 and principles learned in Chapter 4 will be applied in Chapter 14.
- I urge you to attend every class and carefully take notes.
- Since homework is worth 20% of your grade, it is very difficult to pass the class if you do not do your homework.

**Students with disabilities:** LaGuardia Community College provides students with disabilities reasonable accommodation to participate in educational programs, activities, or services. Please contact the Office for Students with Disabilities at (718)-482-5279 in room M-102.

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