

Kingsborough Community College
The City University of New York
Department of Physical Sciences
PHY1200 - General Physics II
Syllabus

PHY1200 – GENERAL PHYSICS II (4 crs. 6 hrs.)

Second term of General Physics. Includes sound, electricity, magnetism and optics. Laboratory sessions included.

Prerequisite: PHY1100

Section: SECTION NUMBER

Time: LECTURE AND LABORATORY SCHEDULE FOR SECTION

Room: ROOM (S) FOR SECTION

Instructor: INSTRUCTOR FOR SECTION

Email: EMAIL ADDRESS FOR INSTRUCTOR FOR SECTION

Office Hours: OFFICE HOURS FOR INSTRUCTOR FOR SECTION

Source materials: The textbook is *Physics: Principles with Applications* by D. Giancoli, 6th edition Scientific calculator – You may not use a cell phone as a calculator on an exam!

Student Learning Outcomes Students will:

- Understand and be able to solve problems involving longitudinal waves and transverse waves.
- Understand and be able to solve problems involving Electric Force.
- Understand and be able to solve problems involving Electric Field.
- Understand and be able to solve problems involving Electric Potential & Electric Potential Energy.
- Understand and be able to solve problems involving Electric Current.
- Understand and be able to solve problems involving DC Circuits.
- Understand and be able to solve problems involving Magnetism.
- Understand and be able to solve problems involving Electromagnetic Induction.
- Understand and be able to solve problems involving Faraday's Law.
- Understand and be able to solve problems involving Electromagnetic Waves & Light.
- Understand and be able to solve problems involving Geometric Optics & Optical Instruments.

Topical Outline Lecture: (Approximate and subject to change upon notification)

Week	Topics	Book Chapter
1	Waves	11
2	Sound	12
3-4	Electric Charge & Electric Field	16
5	Electric Potential & Electric Potential Energy	17
6-7	Electric Current	18
7-8	DC Circuits	19
9	Magnetism & Magnetic Fields	20
10	Electromagnetic Induction & Faraday's Law	21
11	Electromagnetic Waves & Light	22 & 24
12	Geometric Optics & Optical Instruments	23 & 25
13	Final Exam	

Grades:

Grades are calculated from a weighted average of exams, lab scores, and the final exam. 3 Lecture Exams - 35% , Laboratory performance - 15% , Web Assignments & Homework 25%, Cumulative Final Exam - 25% Grades will be awarded as follows: 93% or above=**A**; 90-92.99%=**A-**; 87-89.99%=**B+**; 83-86.99%=**B**; 80-82.99%=**B-**; 77-79.9%=**C+**; 73-76.99%=**C**; 70-72.99%=**C-**; 67-69.99%=**D+**; 63-66.99%=**D**; 60-62.99%=**D-**; <60%=**F**

Missed Exam/Laboratory/Assignment Policy

If you miss an opportunity to demonstrate your knowledge of the subject matter by missing a duly scheduled exam, laboratory or other assignment, the grading scheme does not apply. Your grade will be determined at the discretion of the instructor. By missing a duly scheduled exam, laboratory or other assignment, you accept and recognize that the instructor must determine your grade within the context of determining the grade of students who did not miss a duly scheduled exam, laboratory or other assignment. Instructor Make-up Policy: SUGGESTED: NO MAKE-UP EXAMS, NO MAKE-UP LABORATORIES OR NO MAKE-UP OTHER ASSIGNMENTS. FINAL EXAM WEIGHTED WITH PENALTY (0-100%) FOR MISSED WORK

Lecture attendance: Attending all classes is mandatory. The textbook is a guide for the course additional material will be covered during lecture meetings. If you miss class, you will miss out on taking notes and this will affect your ability to study for tests and quizzes. Except in extreme cases there can be no makeup exams and missing one is grounds for failure of the course. At all times, if you have any questions or need help, please ask your instructor. If you are having difficulties with the course, or if your life is affecting your performance in class, or your ability to attend, let me know as soon as problems arise.

Recommended Chapter Reading & Problems: (Approximate and subject to change upon notification)

Chapter	Omit sections	Homework problems
11	None	TBA
12	None	TBA
16	None	TBA
17	None	TBA
18	None	TBA
19	None	TBA
20	None	TBA
21	None	TBA
22	None	TBA
23	None	TBA
24	None	TBA
25	None	TBA

Homework: will be assigned using *Mastering Physics* web tool. Each homework assignment has due date. Late submissions are not graded. Average homework score will be used in the course grade.

Laboratory

Date	Topic	Requirements
Meeting 1	Transverse Waves on a String	Hand in
Meeting 2	Resonant Air Column – Speed of Sound	Hand in
Meeting 3	Electric Field Mapping	Hand in
Meeting 4	Electric Circuits I (Ohm's Law)	Hand in
Meeting 5	The Electrical Equivalent of Heat	Hand in
Meeting 6	Electric Circuits II (Series and Parallel Connections)	Hand in
Meeting 7	Electric Circuits III (Kirchhoff's Rules)	Hand in
Meeting 8	Current Balance	Hand in
Meeting 9	Transformer	Hand in
Meeting 10	RLC Circuits	Hand in
Meeting 11	Focal Length of a Thin Lens	Hand in
Meeting 12	Double-Slit Diffraction Patterns	Hand in

Laboratory Manual: All labs are posted on the physical science department webpage. Labs need to be downloaded and read before coming to lab. You will not be permitted in the laboratory if you do not have a copy of the experiment.

Note on laboratory component: The laboratory component counts for 15% of your overall result. Failure to pass the laboratory component of the course will result in a grade of F in the course. It is important to note that the laboratory component of the course serves a dual purpose. It offers the opportunity for students to deepen their understanding of a specific experimental science. The laboratory also offers the instructor an opportunity to assess each student's competence in the subject area. The laboratory grade is based on the quality of your work in the laboratory and the quality of your laboratory assignments. Laboratory instructors may assess your competence in the subject through the use of pre-lab assignments, reports, quizzes or practical examinations. All laboratory meetings are mandatory. Performing an experiment at an alternate time will be considered only under exceptional cases. If you miss more than one laboratory meeting you may fail the laboratory portion of the course and, hence, the entire course. All laboratory assignments must be completed and handed in within the time limits set by your laboratory instructor. Laboratory meetings are subject to the regulations of the New York City Fire Department and the laws of the State of New York. If your instructor is concerned that you are unprepared or unable to safely complete a given experiment you may be asked to leave the laboratory and will not receive credit for the meeting. Examples of reasons for an instructor's duty of action include a student arriving late to the meeting, improper attire, failure to study the laboratory experimental protocol, or a general lack of laboratory competence.

Conduct: Students are required to follow *The Student Code of Conduct* as stated in the *Student Handbook*.

Accessibility: Access-Ability Services (AAS) serves as a liaison and resource to the KCC community regarding disability issues, promotes equal access to all KCC programs and activities, and makes every reasonable effort to provide appropriate accommodations and assistance to students with disabilities. You must contact Access-Ability Services if you require such accommodations and assistance. Your instructor will make the accommodations you need, but you must have documentation from the Access-Ability office for any accommodations.