

German-Jordanian University
School of Basic Sciences and Humanities
General Physics II (PHYS 104)

Textbook

Physics for Scientists and Engineers with Modern Physics, by Jewett and Serway, **9th edition** (or 8th edition), BROOKES/COLE, 2013.

Other References

- Fundamentals of Physics, by Halliday, Resnick, and Walker.
- University Physics, by Young, and Freedman.

Course Purpose

To provide you with theoretical knowledge about Electricity & Magnetism. Many courses to come during your study will depend directly or indirectly on this course.

Course Objectives

This course has several rather broad goals. They include that you:

- develop a good understanding of a few important concepts in physics
- learn to apply these concepts to different situations
- gain the ability to reason qualitatively and quantitatively about physics

There will be two sixty-minute exams throughout the semester. Each exam will focus on material from the five or six weeks prior to the week of the exam but may include earlier material as well. Please plan to take all exams when scheduled. If you cannot be present for an exam, consult with your instructor **before** the exam is given. The two exams will be closed book.

According to the university regulations, excessive absences will result in failing the class.

Grades

Homework	10%
Two Exams	50%
Final Exam	40%

Academic Honesty

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet these standards. Academic

dishonesty includes, but is not limited to, dishonesty in exams, or assignments; claiming credit for work not done or done by others. Cheating or gaining illegal information for any type of graded work is considered dishonest and will be dealt with accordingly. During the exams, it is a violation of the academic code to give or seek assistance -- the only person you may communicate with is the instructor or other proctors. In the case of violations, the Academic Conduct Policy of the German Jordanian University, as found in the current student catalog, will be followed.

Tentative Course Schedule

Week	Chapter	Topic	Suggested Problems
1	23	Electric Fields	Ch 23: (8): 5, 8, 9, 13, 17, 21, 25, 29, 33, 43, 45
2			(9): 10, 12, 11, 15, 19, 29, 25, 39, 43, 51, 53
3	24	Gauss's Law	Ch 24: (8): 1, 3, 6, 10, 24, 26, 33, 37, 51 (9): 1, 3, 8, 14, 30, 24, 33, 37, 55
4	25	Electric Potential	Ch 25: (8): 3, 5, 10, 16, 22, 31, 34, 35,39, 40, 42
5			(9): 5, 7,16, 18, 20, 29, 36, 37, 41, 44, 45
6	26	Capacitance and Dielectrics	Ch 26: (8): 2,7,9,11,12,13,17,23,30,33,43,48
7			(9): 2,7,11,9,12,13,15,23,32,31,45,48
8	27	Current and Resistance	Ch 27: (8): 2, 5, 10, 12, 14, 16 , 21, 43
9			(9): 4, 9, 12, 16, 14, 18, 27, 51
10	28	Direct Current Circuits	Ch 28: (8): 1, 7, 13, 21, 29, 33, 34
11			(9): 1, 5, 17, 23, 33, 37, 38
12	29	Magnetic Fields	Ch 29: (8): 3, 4, 8,12, 17, 19, 21, 31, 34
13			(9): 3, 6, 8,13, 21,19, 29, 35, 34
14	30	Sources of the Magnetic Field	Ch 30: (8): 1, 5, 19, 20, 22, 23, 35, 36 (9): 4, 5,19, 22, 23, 25, 33, 38
15	31	Faraday's Law	Ch 31: (8): 4, 9, 14, 23 (9): 6,11,16, 26