Physics II (1240) Syllabus Spring 2022

Class meets T Th 3-4:15p

Prerequisites: Physics I (1230) with grade of C or better, or Instructor permission.

Recommended (but not required) concurrent course: Physics II Lab (152L) Tuesdays, Noon-2:45p

Instructor's office times M 2:45-3:15, 5:15-5:45; T 4:15-5:45; W 2:45-3:15, 5:15-5:45; Th 11:45a-12:15p,1:30-3,4:15-5:45 wcmurray@unm.edu

Text: College Physics 7th ed., Wilson, Buffa, & Lou

A scientific calculator (having trig and powers-of-ten functions) is required.

Student Learning Goals & Objectives: To be able to explain or/and solve problems involving: electric fields, forces, and potential (voltage); d.c. and a.c. circuits, and therefore voltage, current, resistance, capacitance, inductance, and impedance; magnetism, including electromagnets as well as permanent magnets and transformers.; electromagnetic induction; electromagnetic waves; concepts of quantum, atomic, and nuclear physics, recent hypotheses and observations of elementary particles and the Universe; selected results from Einstein's relativity theory.

Policies and Notices:

*After four accumulated absences, the student may be dropped by the instructor without further notice.

*"*Makeup*" tests will be given only at the instructor's discretion—in other words, the instructor is free to **not** give a makeup. If a makeup is given, expect a maximum score of 85%, because of (i) the unfair advantage of a makeup over students who took the test on time, and (ii) the additional time and effort required of the instructor in preparing, scheduling, administering, and grading the makeup.

**Late homework*. Credit may be reduced by 50% if one day late; minus 100% if two or more days late. Homework due dates are indicated on the schedule accompanying this syllabus. Extensions may be granted if late turn-in is due to covid-related circumstances.

**Persistent disruptive behavior*, such as loud talking, ridiculing or intimidating the instructor or other students, or other forms of distraction, will result in the offender being dismissed and dropped from the class.

**Reporting Sexual Misconduct:* Any report of sexual misconduct or gender discrimination made to a UNM faculty member, TA, or GA must be reported to the Office of Equal Opportunity and the Title IX Coordinator (acatena@unm.edu, 505-277-5251).. For more information on UNM policy re sexual misconduct see https://policy.unm.edu/university-policies/2000/2740.html

Homework Format: Homework problems should be clearly separated, either by whitespace (that means more space between main problems than within the problem), or by a separation line between main probs (not between subprobs a, b, c...). Turn homework in by *day*—not by section. That is, if sec 3.1 and 3.2 are presented on the same day, 3.1 and 3.2 should be grouped together—stapled—not separate.

Also, please make the **main** prob #--5, 11, 21, ... (**not** a,b,c...) extra **BIG**. This is to help make the separation between main problems really obvious, so the instructor can find and check the main problems fast. Finally, most homework problems in physics pertain to a physical situation. For such problems, a simple **sketch** is required (it's not pure math; it's Physics.)

Homework is due on Review days, at the 1st of class. Turn in homework by chapter, do not split chapters. Only one grading will be done on each homework—on whatever is turned in 1st. Once part of a chapter is turned in, no further parts will be scored.

A *Formula/Equation sheet* will be provided before each test. Only minor notations on the sheet are allowed. No example problems are permitted. The Instructor may inspect any formula sheet any time during tests; if example problems or excessive notes are found, the sheet will be confiscated, and the test grade lowered at the Instructor's discretion.

Tutoring is available, free. Hours <u>https://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html</u> To sign up <u>https://esurvey.unm.edu/opinio/s?s=131505</u>

*Final Exam Minimum Grade is 70% in order to receive above a "D", regardless of other test or homework scores.

Grading: Homework 4 tests Drop lowest one of t Final exam (not dro	
("x" = student's total accumulated points)	
$536 \le x \le 550$	A+ (unless a test is missed, or homework score is less than 50%).
$509 \le x < 536$	A (unless a test is missed, or homework score is less than 50%)
$495 \le x < 509$	A-
$481 \le x < 495$	B+
$454 \le x < 481$	В
$440 \le x < 454$	B-
426 < x < 440	C+
$399 \le x < 426$	С
$385 \le x < 399$	C- *Note: a C- may not meet the prereq for some courses or requirements of some programs
$330 \le x < 385$	D
x < 330	F

No "Incomplete" (I) grades will be given.