Physics II (1240) **Syllabus**   Spring 2023   Clifton Murray (Mr., Professor, Dr.), UNM-Valencia

Class meets T Th 3-4:15p. 3 credit hours, expect to spend at least six hours per week solving homework problems and studying for tests.

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 MW 1:30-3:15p, TTh 4:15-5:15p, also Th 11:45a-12:15p
wcmurray@unm.edu , 505-925-8727

Text: College Physics 8th ed. Vol II , (Electricity and Magnetism, Optics, and Modern Physics), by 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. For a planned absence, speak to the Professor to see if an early test might be arranged.

*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.

*Accommodations: UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact Accessibility Resource Center at arcsrvs@unm.edu or by phone at 505-277-3506.

**COVID-19 Health and Awareness*. UNM is a mask friendly, but not a mask required, community. To be registered or employed at UNM, Students, faculty, and staff must all meet UNM's Administrative Mandate on Required COVID-19 vaccination. If you are experiencing COVID-19 symptoms, please do not come to class. If you have a positive COVID-19 test, please stay home for five days and isolate yourself from others, per the Centers for Disease Control (CDC) guidelines. If you do need to stay home, please communicate with me at the above contact information; I can work with you to provide alternatives for course participation and completion. UNM faculty and staff know that these are challenging times. Please let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. Please be aware that UNM will publish information on websites and email about any changes to our public health status and community response.

Title IX Our classroom and our university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. Should you ever need assistance or have concerns about incidents that violate this principle, please access the resources available to you on campus. Please note that, because UNM faculty, TAs, and GAs are considered "responsible employees" by the Department of Education, any disclosure of gender discrimination (including sexual harassment, sexual misconduct, and sexual violence) made to a faculty member, TA, or GA must be reported by that faculty member, TA, or GA to the university's Title IX coordinator. For more information on the campus policy regarding sexual misconduct, please see: https://policy.unm.edu/university-policies/2000/2740.html.

Homework Format 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.)

Himework is due on Test 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 https://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html
    To sign up https://esurvey.unm.edu/opinio/s?s=131505

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

Grading:	Maximum points
Homework	100
4 tests	400
Drop lowest one of tests or homework:	-100
Final exam (not dropped)	<u>150</u> (**min 105 (70%) to receive higher than a "D".**)
	550 Max poss course total

("x" = student's total accumulated points)

$536 \leq x \leq 550$	A+	(unless a test is missed, or homework score is less than 50%).
$509 \leq x < 536$	A	(unless a test is missed, or homework score is less than 50%)
$495 \leq x < 509$	A-	
$481 \leq x < 495$	B+	
$454 \leq x < 481$	B	
$440 \leq x < 454$	B-	
$426 \leq x < 440$	C+	
$399 \leq x < 426$	C	
$385 \leq x < 399$	C-	*Note: a C- may not meet the prereq for some courses or requirements of some programs
$330 \leq x < 385$	D	
$x < 330$	F	

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