PHYSICS 260 – UNIVERSITY PHYSICS II – FALL 2022

Tuesday and Thursday 9:00 am – 10:15 am

Lecture Hall 1

Instructor: Patrick Vora (pvora@gmu.edu), Planetary Hall 237

Office Hours: TBD by student poll

Course Website: Blackboard

Text: University Physics, H. Young & R. Freedman, 15th edition with Mastering Physics.

Prerequisites: PHYS 160. MATH 213/215.

Academic Accommodations

Please see me and contact the Office of Disability Services at 703 993 2474. All academic accommodations must be arranged through that office. Students must inform the instructor at the beginning of the semester, and the specific accommodation will be arranged through ODS.

Academic Integrity

GMU is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. Honor Code: To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

Course Objectives

University Physics II focuses on a calculus-based approach to understanding one of the most fascinating topics in physics: electricity and magnetism. The practical implications of what we study this semester are vast with substantial relevance to technologies you use every day, the biological senses you rely on to perceive the world, and even astrophysical phenomena. Specific learning objectives for this course are:

1. Calculate electric fields, forces, and potentials from continuous and discrete charge distributions.
2. Analyze direct current circuits and calculate the electric fields and charge distributions in capacitors.

3. Understand the origin of magnetic fields, how to calculate them, and how they influence other charge distributions.
4. Master the concept of inductance and connect it to modern technologies.
5. Explore the unique properties of alternating circuit circuits.

Course Assignments and Grading

1. **Homework [10%]:** Assignments will be issues through Mastering Physics. A link is provided on Blackboard under 'Course Content.' Your lowest homework assignment will be dropped.

2. **Exams [45%]:** Three exams will be administered throughout the semester. Your lowest scoring exam will be dropped. Therefore, each exam is worth 22.5%.

3. **Final Exam [35 %]:** The final exam is cumulative.

4. **Recitations [10%]:** Recitations are graded 50% on attendance and 50% on participation. You may miss two recitations.

Exam Etiquette

All exams are closed book. A formula sheet will be provided. Calculators may be used but must be cleared before beginning the exam. Smartphones, smartwatches, or headphones/earbuds are prohibited. Students who violate this policy will automatically fail the exam.

Exam Absence

The only valid excuse for missing an exam is a documented medical emergency.

Homework Grading Policy

Your lowest homework will be dropped.

Grading Scale

A	A-	B+	B	B-	C+	C	C-	D	F
100 - 93.33	93.32-90	89.99-86.67	86.66-83.33	83.32-80	79.99-76.67	76.66-73.33	73.32-70	69.99-60	<60