

**Phys 2644 – Physics II (Electricity, Magnetism, & Optics)
Online Lecture & Lab**

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Textbook: *Physics for Scientists and Engineers, 4th Edition* by Krane (ISBN: 978-0-133-94265-1), Accompanying Student Workbook (optional - if not purchased with the text, ISBN: 978-0-134-06982-1), MasteringPhysics Access Code (If not purchased with the text, just buy directly at www.masteringphysics.com). Package with all 3: ISBN 978-0-133-95314-5.

Office Hours: By appointment only – these will be done in an online format. To request a meeting with me via Zoom, please send me an email!

Lab: All online on the main course D2L page.

Grading: Labs – 15%, MasteringPhysics – 20%, Presentations – 15%, Exams (2 @ 15% each) – 30%, Final – 20%

Course Website: www.masteringphysics.com -- You are expected to be registered for the course prior to Monday, January 22. Course ID: **MPDUNN6208320**

Course Description: This course is designed to introduce the student to the basic concepts of physics. We will cover everything from linear kinematics to thermal physics.

Attendance: While attendance is not factored into your grade directly, you must login to class regularly if you hope to do well. Tests can only be made up if you have an excused absence (illness counts only if you can provide a doctor's note). Any planned absences from class should be discussed with the instructor beforehand if you are going to be missing a graded activity (e.g, test, quiz, etc.) so that make-up plans (if approved) may be arranged. Excused absences include university sponsored events, illness (documentation required showing you saw a doctor – you do not need to disclose why) and the death of an immediate family member (parents, children, siblings, etc.).

Lab: All lab assignments must be completed. If you have a question about a particular lab, please post it in the appropriate discussion forum.

Expectations: Students should read the chapters in the textbook each week, read through the lecture notes provided in the PowerPoint slides that summarize the textbook material, view all videos and read all notes posted by Dr. Dunn, and complete the related MasteringPhysics and workbook assignments.

Cheating and plagiarism will not be tolerated. Examples of cheating and plagiarism include, but are not limited to, copying another student's work and submitting as your own,

copying information from a website, journal, or any other written source and submitting as your own (regardless of whether or not you have cited the work), and taking direct quotes or information from any source without citing the reference. All assignments you submit in this course are expected to represent your original work. Appropriate use of references includes extracting information in support of your own stated arguments, not copying said references verbatim in their entirety. **A single infraction will result in receiving a zero on the relevant assignment. Multiple infractions will result in failing the course, and the information will be forwarded to the appropriate members of the university administration for consideration of further consequences.** If you are ever in doubt as to whether or not something will be considered cheating and / or plagiarism per this class policy, please email or talk to me before submitting the assignment. Please note that use of homework solution sites falls under the category of cheating and will be treated as such.

Note: In accordance with the law, MSU provides students with documented disabilities academic accommodations. If you are a student with a disability, please contact me.

Note: By enrolling in this course, the student expressly grants MSU a "limited right" in all intellectual property created by the student for the purpose of this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work product in order to verify originality and authenticity, and for educational purposes.

Exams: Exams will be available on the dates listed below. The final exam will be cumulative. Exams are already open, but must be completed by the following dates (also indicated in MasteringPhysics).

Exam 1: Monday June 22, 2020
Exam 2: Monday July 13, 2020
Final Exam: Thursday August 6, 2020

Topics to be Covered:

Electric Charges and Forces
The Electric Field
Gauss' Law
The Electric Potential
Potential and Field
Current and Resistance
Fundamentals of Circuits
The Magnetic Field
Electromagnetic Induction
Electromagnetic Fields and Waves

If time permits, we will also discuss:

AC Circuits
Wave Optics
Ray Optics
Optical Instruments
Selected Topics from Modern Physics