

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

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Textbook: *Physics for Scientists and Engineers, 5th Edition* by Knight (provided online through the program discussed below) and the accompanying Student Workbook (required, available for purchase in the MSU Bookstore - ISBN: 9780137585489).

Required digital materials for this course are part of the Courseware Access and Affordability Program at MSU Texas. Students are charged for required course materials on their student account with the Business Office. Any students who wish to opt-out of the Program and purchase the required course materials on their own must do so prior to the date indicated by the MSU Bookstore. Opt-out instructions are sent to students' official my.msutexas.edu email address after the first day of class. Please contact the MSU Bookstore if you have any questions about the opt-out process.

Office Hours: To request a meeting with me via Zoom for virtual office hours, please send me an email! For regular office hours, I am generally available for face to face meetings on Mondays from 10:00 am – 11:00 am, and 12:00 pm to 2:00 pm. Other times for face to face meetings are available by appointment only.

Lab: You are required to complete 10 labs over the course of the semester. Labs will meet weekly (based on what section of lab you registered for, meeting in either McCoy 203 or 205). **Labs will begin the week of February 6, 2023.**

Grading: Labs – 10%, MasteringPhysics – 10%, Workbook Assignments – 10%, Presentations – 10%, Exams (2 @ 15% each) – 30%, Final – 30%

Homework & Exam Website: www.masteringphysics.com – Registration information can be found in the Course Introduction module on D2L.

Course Description: This course is designed to introduce the student to the basic concepts of physics. We will cover everything from electrostatics to electromagnetic waves.

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.).

Online Lab Option: Only in the event of a verified quarantine resulting from the COVID-19 pandemic, a student may be provided with online lab exercises to complete during the required quarantine period.

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 within MasteringPhysics on the dates listed below. The final exam will be cumulative, and is scheduled as indicated below.

Exam 1: Monday February 13, 2023

Exam 2: Friday March 10, 2023

Final Exam: Friday May 5, 2023

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