The University of Texas at Tyler
Syllabus
Fall 2025
University Physics II
Physics 2326
Section 1

Instructor: Dr. Randy Back
Classroom: RBN 4034
Class Time: MWF 9:05-10
Office: RBN 4047
Phone: (903) 565-5797
Email: rback@uttyler.edu
Office Hours: MTWRF 10-11. You should feel free to stop by my office any time or make an appointment. If I am available, I will be happy to help you.
Course Topics: This course will introduce the student to some basic concepts and principles in physics. Problem solving will be a major component of this class. Major topics covered will include Waves, Light, Electric Fields and Magnetic Fields.
Text: *Physics for Scientists and Engineers,* by Knight 5th edition with access code to masteringphysics ISBN-13: 9780137319541
Here is a link to the Pearson website where you can get the e-text and access to the homework site.
https://www.pearson.com/en-us/subject-catalog/p/physics-for-scientists-and-engineers-a-strategic-approach-with-modern-physics/P200000006998/9780137319541
Prerequisite: Math 2414 is required. This class will be in-person, attendance is expected.
Homework: Homework will generally be assigned after each class period on https://mlm.pearson.com/northamerica/masteringphysics/.
The course ID is back87880. It will be due the following class period. You must spend significant time on the homework to really understand this material.
Tests: There will be four in-class tests during the semester. The tentative dates for the tests are (Sept.17, Oct. 10, Nov. 3 and Dec. 5) Calculators will not be allowed during the test.
Final Exam: The final will cover material from the entire semester. Your grade on the final can replace your lowest test grade.
Make-up: No late work will be accepted. If you have an excused absence you must make up the work before the due date. **Grading**:
10 % Homework
75 % 4 Tests
15 % Final
Your final letter grade will be given based on the following percentages: A (90%-100%), B (80%-89%), C (70%-79%), D (60%-69%), F (<60%).
Disclaimer: All the above is subject to change due to circumstances beyond our control.
Students' Rights and Responsibilities
A complete description of student rights and responsibilities can be found on the Canvas page for this course.

Census Date is September 8
Last Day to withdraw from a course is November 3rd
The final exam will be on December 8th

Course Objectives/Student Learning Outcomes
1. **Critical Thinking:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. **Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Online Physics Resources
1. http://lightandmatter.com/
2. http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html
3. http://www.physicsclassroom.com/
4. http://ocw.mit.edu/courses/physics/

General Course Information

1. You are responsible for all the material covered in class.
2. Physics builds on itself. It is very important that you do not fall behind on the material.
3. You should read and understand the material in the book.
4. It is very important that you spend time outside class reading the material and doing the homework. The only way you will understand the material is to spend time working on the problems.
5. I strongly encourage you to ask questions in class and come by my office any time you need help.
6. Regular classroom attendance is expected.
7. If use of electronic devices for non-classroom activities becomes a distraction you will be asked to leave.

Material for Test 1 (Aug 25-Sept.17)

Chapter 16 Traveling waves sections 1, 2, 3, 9
Chapter 17 Superposition sections 1-6
Chapter 33 Wave optics sections 1-2
Chapter 34 Ray optics sections 1-5, 7

Test 1 September 17

Material for Test 2 (Sept.19-Oct. 10)

Chapter 22 Electric charges and forces all sections
Chapter 23 Electric field sections 1-6
Chapter 24 Gauss's Law all sections

Test 2 October 10

Material for Test 3 (Oct. 13- Nov. 3)

Chapter 25 The electric potential all sections
Chapter 26 Potential and Field sections 1-6

Test 3 November 3

Material for Test 4 (Nov. 5- December 5)

Chapter 29 The magnetic field all sections
Chapter 30 Electromagnetic induction sections 1-8

Test 4 December 5

Final Exam December 8 8-10 am