The University of Texas at Tyler
Syllabus
Spring 2025
Independent Study
Physics 4399
Section 1

Instructor: Dr. Randy Back
Class Room: RBN 4047
Class Time: TBA
Office: RBN 4047
Phone: (903) 565-5797
Email: rback@uttyler.edu
Office Hours: MWF 9-10 and TR 12:30- 1:30. 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 of modern physics. We will start with Einstein's Theory of Special Relativity and move into the historical development of quantum mechanics culminating in the Schrodinger Equation.
Text:
Prerequisite: Math 2414 is required.
Homework: Homework will generally be assigned after each meeting. We will meet twice a week and discuss material. Homework will be assigned based on those discussions.
Tests: There will be no tests.
Final Exam: The final exam will be a set of take home-problems the student must solve.
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**: 90 % Homework
10 % 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 January 27
Last Day to withdraw from a course is March 31

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.
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 reading the material and doing the homework. The only way you will understand the material is to spend time working the problems.