

THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF PHYSICS

CRN: 12756
Course Title: PHYS 2325, Survey of Modern Physics
Credit Hrs: 3
Term: Fall 2018
Course Meetings & Location: TR 3:00 – 4:20 pm, Education Building 301
Prerequisite Courses: PHYS 2421
Instructor: Dr. Huiyan Yang
Office Location: PSCI 215B
Contact Info: Phone # 915-747-7510
E-mail hyang4@utep.edu
Fax # 915-747-5447
Emergency Contact # 915-747-5536
Office Hrs: TR 1:30 – 2:30 pm; or through appointments
Textbook(s), Materials: Required: Physics for Scientists and Engineers: A Strategic Approach, Extended Edition (4th), by Randall D. Knight
Online study tool: MasteringPhysics (MPYANG87860)
(Homework is assigned and graded in MasteringPhysics. All students are required to have access of MasteringPhysics.)
Suggested: Modern Physics, 3rd Edition, by Kenneth S. Krane
Course Objectives (Learning Outcomes): The main objective of this course is to introduce students the theories of modern physics and its many and varied applications. Making emphasis in the special theory of relativity and quantum theory, it will be provided a framework for understanding the physics of atoms and nuclei. The theory of atom will be examined with emphasis on quantum-mechanical notions. The expected outcome of this course is to give the students a conceptual framework to prepare them to connect the underlying theories to applications in different areas of science and technology.
Course Activities/Assignments: Course activities include reading assignments, lectures, homework, quizzes, three regular exams, and a final exam.
Assessment of Course Objectives: Outcomes will be measured by homework and exams.
Grading Policy: Grades will be calculated using the following weights:
Homework 20%; Quizzes 10%; Exams 30%; Final Exam 40%
Make-up Policy: No credit will be given to missed homework. Attendance at exam is mandatory. Make-up exams can be arranged at the discretion of the instructor. A written excuse will be necessary for rescheduling an exam.
Attendance Policy: Attendance in class is the responsibility of the students. If class is missed, you are responsible for obtaining the notes from another student or from the instructor.

- Academic Integrity Policy:** Acts of academic dishonesty will not be tolerated in this class. Lapses in academic integrity will be referred to the Dean of Students, as required at <http://academics.utep.edu/Default.aspx?tabid=23785>.
- Civility Statement:** This course requires positive behaviors: Be on time and be focused on your work. Please do not distract yourself or others with telephones or music.
- Disability Statement:** If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located at UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.
- Military Statement:** If you are a military student with the potential of being called to military service and /or training during the course of the semester, you are encouraged to contact me as soon as it appears that your service will interfere with this course. The instructor will work with you to ensure that your service will not adversely affect your academic progress.
- Course Schedule:** Tentative timeline: May change with class activity
Chapter 36: Relativity
Chapter 37: The Foundations of Modern Physics
Chapter 38: Quantization
Chapter 39: Wave Functions and Uncertainty
Chapter 40: One-Dimensional Quantum Mechanics
Chapter 41: Atomic Physics
Chapter 42: Nuclear Physics
Exam I: Oct. 4th Thursday
Exam II: Nov. 6th Tuesday
Exam III: Dec. 4th Tuesday
Final Exam: Dec. 13th Thursday