

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

Course #: PHYS 4355; CRN: TBA
Course Title: Introduction to Quantum Mechanics
Credit Hrs: 3
Term: Fall 2015
Course Meetings & Location: TBA
Prerequisite Courses: PHYS 2420, PHYS 2421, MATH 2326
Instructor: Dr. Chungqiang Li
Office Location: PSCI 221E
Contact Info: Phone # 7537
E-mail address: cli@utep.edu
Fax # 915-747-5447
Emergency Contact:

Office Hrs: TBA
Textbook(s), Materials: Required: Introduction to quantum Mechanics, 2nd Ed. David Griffiths
Suggested: Quantum Theory, Davis Bohm
Course Objectives (Learning Outcomes): Develop an understanding and attain knowledge of quantum mechanics fundamentals. Gain skills and abilities to apply fundamental laws in quantum mechanics to natural science or engineering situations. Get o to solve problems analytically and numerically.
Course Activities/Assignments: Course activities include reading assignment, lectures, homeworks, two regular exams, and a final exam.
Assessment of Course Objectives: Outcomes will be measured by homework and exams.
Grading Policy: Grades will be assigned on a standard scale:
>89% A
80%-89% B
70%-79% C
60%-69% D
<60% F
Grades will be calculated using the following weights:
Two midterm exams 60%; Final exam 40%.
Make-up Policy: 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 a student has or suspects he/she has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at <dss@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions.

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, please contact me within the first two weeks of class to arrange in advance for makeup exams, etc.

Course Schedule: Tentative List of Topics and Exams:

1. Introduction
2. Schrodinger equations
3. Examples in one dimension: infinite well potential,
Exam 1
4. Harmonic oscillator
5. Mathematical formalism
6. Three dimesions: Hydrogen atom,
Exam 2
7. Angular momentum
8. Spin
9. Identical particles (possible)
Final Exam

Note: Graduate students registered in this course will need to perform a graduate level project to earn credit toward graduate degree. Please see the instructor.