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 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. Schrödinger equations
3. Examples in one dimension: infinite well potential, Exam 1
4. Harmonic oscillator
5. Mathematical formalism
6. Three dimensions: 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.