Physics 9HE: Applications of quantum mechanics—Syllabus

Coordinates: Tues/Thurs 12:10-1:30 PM, Physics Building room 148

Final date: TBD

Textbook: Modern Physics by Randy Harris (feel free to purchase the international edition which is identical to the hardcopy) with supplemental reading from other texts which will be posted to Canvas

Instructor: Prof. I. Vishik, Physics Building room 239
ivishik@ucdavis.edu

Office hours: Monday TBD
Wednesday TBD
Or by appointment

TA: TBD

TA office hours: TBD

Assignments: Weekly problem sets (8 in total), one in-class midterm (Feb 13), one final (date TBD)

Grading: Homework 20%, Midterm 30%, final 50%

Homework policy: Homeworks are due at the beginning of class on Tuesday. Lowest homework grade will be dropped. Late homework: 50% deduction if turned in within 24 hours, 75% deduction if turned in 24-48 hours of due date, not accepted after 48 hours.

Exam policy: One handwritten note sheet (8.5 x 11", front and back) may be used for the midterm and final, and will be collected with the exam. Calculators may be used on exams.

Course description: This class covers several of the numerous applications of quantum mechanics with an emphasis on applications important to modern technology. The three major topics covered in this course will be the hydrogen atom, lasers, and semiconductor theory/devices.

Prerequisites: course 9HD and Mathematics 22B (may be taken concurrently)

Accompanying lab/recitation: Dr. Tom Weideman, Coordinates TBD