CHEM 161 Fall2014

# **CHEM 161 - Quantum Chemistry**



**Time:** 9:35-10:25 AM MWF

**Room:** Angell Lecture Center B203

Lecturer: Jianing Li (jianing.li@uvm.edu, Cook A223)

**Office Hour:** 10:30-11:15 AM WF

**Grader:** Joseph Wright (joseph.wright@uvm.edu)

## Summary

CHEM 161 covers quantum mechanics and some of its applications in modern chemistry (e.g. spectroscopy and computation). The goal of this course is to provide students with a fundamental understanding of the quantum chemical description of atoms and molecules. Students will understand the underlying theory of many facts and rules from previous chemistry courses and obtain the background and skills for further courses and researches.

## **Prerequisites**

- PHYS 012, 042, or 152.
- MATH 121 or 124, or the special preparation course CHEM 167 (5:10-6:15 PM MW). Prior knowledge of a math software program (e.g. Mathematica or Matlab) is helpful.

## **Textbooks**

## Required:

• Physical Chemistry, 4<sup>th</sup> Edition, by Silbey, Alberty, and Bawendi (ISBN-43: 978-90(.0081 Tc 5.8S&MCID 18 unow)c