

MWF, 9:30-10:20, Bus 318

Instructor: Steve Scheiner, Chemistry Building 273
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Office Hours: M, Th, 10:30 - 11:20; other times by appointment.

Text: "Physical Chemistry " 4th ed.; Laidler, Meiser, Sanctuary.

Content: The course will cover topics presented in Chapters 11-19 of the text. Students are encouraged to read the chapters and work the practice problems in the text.

Grading: Students will be evaluated in a number of ways.

In-Class Exams: 300 points.

There will be four 50-min exams. Each student may drop the lowest of their four grades. Students who take only 3 exams will have all three grades count. Students missing more than 1 exam will receive a grade of 0 on any missed in excess of 1.

Quizzes: ~140 points

Some lecture classes will begin with a short quiz. These quizzes will not be announced in advance, so students should come prepared to take a quiz each day (please bring a calculator). There will be roughly 16 such quizzes during the semester, each worth 10 points. Each student taking all quizzes will be able to drop their two lowest grades.

Problem Sets: ~240 points

Students will be required to turn in problem sets during the semester, approximately 12 such sets. Each will be worth 20 points. No grades will be dropped.

Final Exam: 200 points. This exam will be comprehensive, covering material from the entire course. It is scheduled for **Mon, May 1, 9:30- 11:20 AM.**

Learning Objectives

Students will learn to do the following:

Apply the Schrodinger equation to simple systems

Explain the significance of quantum numbers

Apply valence bond and molecular orbital methods to chemical bonds

State the electron configuration of atoms

Apply principles of electronic, rotational, and vibrational spectra

Use the partition functions of simple systems to explain properties

Derive the properties of crystalline solids from their molecular properties

Analyze the properties of liquids in terms of intermolecular forces

Inter-relate macroscopic and transport properties of materials

In accordance with the Americans with Disabilities Act, and in cooperation with the Disability Resource Center, reasonable accommodation will be provided for students with disabilities. Please meet with the instructor during the first week of class to make arrangements. Alternative format print materials, large print, audio, diskette or Braille, will be available through the Disability Resource Center.

The last day to add this class is the 15th day of the semester. Attending this class beyond that date without being officially registered will not be approved by the Dean's Office.