

CHEM 1480: Intermediate Physical Chemistry
Spring 2018 (2184)
Course Syllabus

Course Information

Course Number: 10377 - 1010 (Lecture)
Meets: M, W 4:00 - 5:15 PM
Room: 152 Chevron Science Center

Instructor Contact Information

Dr. Tamika A. Madison
Office: 107 CSC
Phone Number: 624 - 8979
Email: tam7@pitt.edu
Office Hours: TBA

Course Overview

- Intermediate physical chemistry covers quantum chemistry (including some computational chemistry) and statistical thermodynamics. It is assumed that students who take this course has already taken a course in classical thermodynamics.

Textbook and Materials

- Ball, David W. *Physical Chemistry*, 2nd ed.; Cengage Learning: Connecticut, 2015

Blackboard (Course Web)

- A Course Web site has been set-up for this course section. You are automatically added to this site upon registration. Here you will find the course syllabus, homework assignments, handouts, weekly objectives and lecture notes. General announcements concerning this section will also appear here. Finally, you will have access to your exam and homework scores.

Student Responsibilities

- You should make a serious effort to attend all lectures. Your success in this course depends on it. Before lecture, you should print the lecture notes to bring with you. You are responsible for obtaining notes if you have to miss a lecture. I will not email lecture slides to students.
 - If you arrive to class late or need to leave early, please utilize the rear entrance to Room 152.
 - Your full attention in class is a key factor in your success in this course. Please refrain from using cell phones in any way and other electronic devices for reasons that are not connected to the lecture. Not only are these devices distractions for you, they can distract your classmates and myself. You can be asked to leave the class for repeated offenses.
- All students must take in-class exams and the final exam on the scheduled day and time. **No “early” or “make-up” exams will be given during the term.** If you miss an exam, I urge that you contact me as soon as possible so that we can discuss your options.
- If you feel that an error was made in grading your exam, you are responsible for submitting it to me for a re-grade within a week after it is returned. To submit your exam for a re-grade, please complete the form provided on Courseweb and attach it to your exam. I reserve the right to re-grade the entire exam as I see fit.

- Homework will be assigned in class and will also be posted on Courseweb along with the due date. You are responsible for completing assigned homework problems by the due date. **No assignment extensions for individual students will be granted.**

Grading

Course Components	Weight
Two In-Class Exams	40%
Final Exam	30%
Homework	15%
Computational Project	15%

- Final letter grades are determined using the final class average and distribution of scores.
- **Academic Integrity.** Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity, from the February 1974 Senate Committee on Tenure and Academic Freedom reported to the Senate Council, will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz, exam, or assignment will be imposed.
- **Students with Special Needs.** If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both myself and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 or 412-383-7355 (TTY) as early as possible in the term. Disability Resources and Services reviews documentation related to a student's disability, provides verification of the disability, and recommends reasonable accommodations for specific courses.

Tentative Course Schedule

Week	Topic	Reading
1/8	The Birth of Quantum Mechanics	9.1 - 9.11
1/15 (W)	Quantum Mechanics: General Principles	10.1 - 10.7
1/22	Quantum Mechanics: General Principles Simple Quantum Systems: Particle in a Box	10.8 - 10.14
1/29	Simple Quantum Systems: Vibrations and Rotations	11.1 - 11.8
2/5	Electronic Structure of Atoms: Hydrogen	11.9 - 11.11
2/12	2/12: Exam 1 Electronic Structure of Atoms: Many Electron Atoms	12.1 - 12.7
2/19	Electronic Structure of Molecules	12.10 - 12.13
2/26	Spectroscopy	14.1 - 14.18 Handouts
3/5	SPRING BREAK - NO CLASSES!!	
3/12	Computational Chemistry	Handouts
3/19	Computational Chemistry	Handouts
3/26	326: Exam 2 Statistical Thermodynamics	17.1 - 17.4
4/2	Statistical Thermodynamics	17.5 - 17.7
4/9	Statistical Thermodynamics	18.1 - 18.6
4/16	Statistical Thermodynamics	18.7 - 18.10
Final Exam: Thursday, April 26th 2:00 - 3:50 PM		
Final Exam is not cumulative and will cover computational chemistry and statistical thermodynamics		