

CH 343 Physical Chemistry

Lecture: MWF 8:00-8:50, Henry Hall 33

Instructor: Janet Jensen

Office: Henry Hall 24

Phone: 735-4858

Office Hours: MF 9:00-10:00, **TuWTh** 12:00-1:00, or by appointment

[E-mail: jjensen@chaminade.edu](mailto:jjensen@chaminade.edu)

Course Description: CH 343 is the first of a two semester study of the theories and principles of physical chemistry. The topics covered in CH 343 include thermodynamics, phase diagrams, kinetic theory of gases, chemical **equilibrium** and **electrochemistry**. **Prerequisites:** CH 204, PHY 253, and MA 211. Concurrent registration in CH 343L is required.

Performance Objectives:

Students will develop an understanding of why chemical processes occur based on the fundamental laws that govern the flow of energy (thermodynamics).

Mathematical models requiring elementary calculus will be developed which allow for quantitative predictions of chemical properties. These models often forge a link between molecular level events and macroscopic properties.

Students will further advance their problem solving skills through the application of chemical theories and models.

Texts:

- PHYSICAL CHEMISTRY, 6th edition, by Peter Atkins (required)
- Student Solutions Manual (recommended)

The above are sold as a set in the CUH bookstore. Copies of the solutions manual are available for use in my **office**.

Class Requirements: Students are expected to attend all scheduled classes, to be on time, and to stay until the class is finished. They are responsible for any material covered or announcements made in their absence. In case of illness or other unavoidable absences, please **contact** me as soon as possible.

Homework: Recommended problems will be assigned for each chapter, but they will not be graded because the solutions manual is available. Students are strongly urged to work these problems since exam problems may be similar to the assigned problems.

Exams: The course examinations will consist of four exams (including the final) and nine short quizzes. The tentative dates are listed in the schedule. If you anticipate an ~~excused~~ absence from any examination, you should arrange to take the exam early. Make-up examinations will only ~~be~~ given for excused absences or documented medical reasons.

Course Grades: The final grade will be out of 600 total points.

- Exams (100 points each) $\times 4 = 400$
- Quizzes (20 points each) $\times 9 = 180$
- Attendance and participation $= 20$

600

The following scale will be used to determine the final grade. Any changes will be announced in class.

88-100%	A
75-87%	B
60-74%	C
45-59%	D
<45%	F

CH 343 Schedule: The schedule may be adjusted according to progress made during the semester.

DATE	CHAPTER		DATE	CHAPTER
27-Aug	Intro		22-Oct	Ch 7
29-Aug	Ch 1		24-Oct	Ch 7
31-Aug	Ch 1		26-Oct	Ch 8, Quiz
3-Sep	Holiday		29-Oct	Ch 8
5-Sep	Ch 1		31-Oct	Ch 8
7-Sep	Ch 2, Quiz		2-Nov	Ch 9, Quiz
10-Sep	Ch 2		5-Nov	Ch 9
12-Sep	Ch 2		7-Nov	Ch 9
14-Sep	Ch 3, Quiz		9-Nov	Ch 10, Quiz
17-Sep	Ch 3		12-Nov	Holiday
19-Sep	Ch 3		14-Nov	Ch 10
21-Sep	Exam 1		16-Nov	Ch 10
24-Sep	Ch 4		19-Nov	Ch 10
26-Sep	Ch 4		21-Nov	Exam 3
28-Sep	Ch 4 Quiz		23-Nov	Holiday
1-Oct	Ch 5		26-Nov	Ch 19
3-Oct	Ch 5		28-Nov	Ch 19
5-Oct	Ch 5, Quiz		30-Nov	Ch 19, Quiz
8-Oct	Holiday		3-Dec	Ch 20
10-Oct	Ch 6		5-Dec	Ch 20
12-Oct	Ch 6		7-Dec	Ch 20, Quiz
15-Oct	Ch 6			
17-Oct	Exam 2		13-Dec	Final Exam
19-Oct	Ch 7			8:00-10:00 AM