

## CH 343L Physical Chemistry Laboratory

**Lab Section 01 Wed 2-4:50 pm**

**Instructor Janet Jensen**

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

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### Course Description

CH 343L is the first semester of a two semester laboratory course that accompanies the physical chemistry lecture courses, CH 343/344. Concurrent registration in CH 343 is required.

### Performance Objectives

The main goals of this course are:

- to teach laboratory skills important in making accurate measurements of physical and chemical phenomena
- to teach quantitative methods of analyzing and interpreting such measurements
- to develop the student's ability to describe their laboratory work and results in a professional manner through written reports and oral presentations
- to reinforce material from the physical chemistry lecture course

### Materials

- safety glasses
- covered footwear
- composition style notebook
- access to word processor and spread-sheet software

### Class Requirements

In this course, students are expected to conduct three investigations. A list of experiments will be handed out separately. The procedures will be made available through the instructor. Students are expected to prepare for the lab

and have a detailed procedure before the beginning of the experiment. Students will work in pairs for each experiment.

After the completion of the first experiment, each group will present a 15 minute oral report to the rest of the class on the important features of the experiment.

After completing the second experiment, each student will submit a written report (ten pages maximum including figures and tables). The reports should be written in manner that has both clarity and is concise:

- the introduction should contain only enough background material to show why the work was done
  - the experimental descriptions should be referenced and only significant details described
  - the discussion and conclusion sections should be clear and to the point
- These reports should be written independently, but partners should be listed as co-authors.

After the completion of the third experiment, each group will construct, display and present a poster of their results.

## Grading

The final grade will be based on the total number of points accumulated through the semester.

Experiment #1 Oral Report 100 points  
Experiment #2 Written Report 100 points  
Experiment #3 Poster Report 100 points  
General Lab Skills 50 points  
Total 350 points

Each of the reports will be graded on the following criteria:

organization  
clarity  
completeness  
graphics  
references  
format  
understanding

The tentative grade scale is:

90-100 % A	65-79 % C	<40 % F
80-89 % B	40-64 % D	

## CH 343 Lab Schedule - Fall 2001

Week	Date	
1	8/29	Introduction
2	9/5	Lab Report Discussion
3	9/12	Experiment 1 starts
4	9/19	Expt. 1 continues
5	9/26	<b>Expt. 1 concludes</b>
6	10/3	Oral Presentations on Expt. 1
7	10/10	Experiment 2 starts
8	10/17	Expt. 2 continues
9	10/24	Expt. 2 concludes
10	10/31	Experiment 3 starts; Expt. 2 Written Report Due
11	11/7	Expt. 3 continues
12	11/14	Expt. 3 concludes
13	11/21	Poster Workshop
14	11/28	Independent Work on Posters
15	12/5	Poster Presentation

A list of experiments will be handed out separately. Any changes will be announced in class.