

Techniques of Chemical Measurement

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BE 200 F 9am-2pm

Course In this course, you will learn a variety of analytical methods and use those methods in analytical experiments. You will learn instrumentation techniques, how to obtain precise measurements and how to interpret the resulting data. The course is divided into 3 parts: 1) wet chemistry and equilibrium, 2) spectroscopy, and 3) electrochemistry.

Prerequisites One of the following: Chemistry C072, C082 or H092, as well as one of the following: Chemistry C074, C084 or H094 (Gen ChemII Lecture & Lab). Co-requisite: Chemistry C0129

Textbooks Quantitative Chemical Analysis, 6th Ed. by Daniel Harris, Pub: W. H. Freeman & Co. Procedures for experiments are available on Blackboard.

Grading

Lab Reports	20%
Quizzes	20%
Midterm	20%
Final	40% = 100%

Course grades will be based on a 90% A/A-, 80% B+/B/B-, 70% C+/C/C-, etc. of the total points earned. No late homework assignments or lab reports will be accepted; zero grades will be recorded and there are NO exceptions. Reports are due by the end of the following lab period.

Lab Report Format: Raw Data (photocopy notebook), Calculations and Final Results

Week	Notes	(M) Lecture	(W)	Lab
1 - May 15	Read Ch 1-4 before 5/15	Ch 6	Ch 7	Prep/Std HCl & Prep/Std NaOH (pg. 256)
2 - May 22	<i>Quiz 1 Due</i>	Ch 8,9	Ch 10	Analysis of Carbonates & pH Meter Titration
3 - May 29	Last day to drop <i>Quiz 2 Due</i>	Holiday	Ch 10/11	Buffer Behavior & Error Analysis (Ch 1-4)
4 - June 5		<i>Midterm</i>	Ch 11/12	Redox Titration
5 - June 12	Last day to withdraw <i>Quiz 3 Due</i>	Ch 12	Ch 18	Iron & Food Color Analysis
6 - June 19	<i>Quiz 4 Due</i>	Ch 18/14	Ch 14	Mixture Analysis & pKa
7 - June 26		<i>Final</i>		

Note: This is a combined lecture and lab course. To pass this course, satisfactory grades must be achieved in both the lecture and laboratory portions. Poor performance (D or F) in the lecture portion will lead to an overall failing grade, regardless of lab performance and vice versa.

- All students must have a Temple email address – check it daily for course information.
- Enrollment in a course implies intent to attend regularly.
- Excessive absences may be reported to your adviser, may jeopardize your grade, or may jeopardize your continuance in the course. You are responsible for missed work.
- Incomplete Course Work: Reserved for emergencies only and requires a written agreement describing the nature of the work to be completed and the completion deadline. A default grade must be stated and will be entered if the student's work is not completed or if the instructor does not change the "I" grade within one year.