

Chemistry 0250: Introductory Analytical Chemistry

Fall 2025

- Instructor** Shigeru Amemiya, Professor
Office: Room 803A, Chevron Science Center
Email: amemiya@pitt.edu
- Lecture** Monday, and Wednesday, 6:00 pm–7:15 pm
Room 154, Chevron Science Center
- Recitation** Wednesday, 7:20 pm–8:10 pm
Room 154, Chevron Science Center
- Office Hours** By appointment
Room 803A, Chevron Science Center
- Text** Quantitative Chemical Analysis, 10th Edition
By Daniel C. Harris, and Charles A. Lucy, W. H. Freeman and Company, 2020
- Goal** This course is aimed to (1) understand fundamental concepts of analytical chemistry, (2) master quantitative treatment of chemical equilibrium as a basis of traditional analytical methods, and (3) be familiar with basic principles of modern instrumental analysis.

Grading Scheme and Course Policies

Attendance: Regular attendance is expected. You are responsible for the materials discussed in your absence.

Calculator: A hand-held calculator is required for solving some exam and homework problems. A calculator may not be shared during exams. No cellular phone may be used as a calculator during exams.

Reading Assignments: You are expected to read/skim the entire reading assignment by the date indicated in the course schedule. It will be very useful to have an overview of each subject in advance.

Homework: Three problem sets, each worth 30 points, will be announced or handed out during class. Homework must be turned in at the beginning of the class on the due day - no late homework will be accepted. Doing the homework assignments is a minimum expectation. Please practice as many problems as time allows.

Exams: Two 75 min exams will be given during regular class on the following days. Each exam will be worth 125 points. All of them are counted for grading. A review will be given in recitation.

Exam 1: September 29

Exam 2: October 4

Final Exam: The final examination is worth 150 points and is NOT cumulative.

Make-up Policy: Please consult with me in advance if you will miss any exam.

Final Grading: The points earned on homework, exams, and the final exam (total possible points = 490) are counted.

Grading:

Homework	90 pts
Exams 1 and 2	250 pts
Final Exam	150 pts
Total	490 pts

Grade Scale:

A+	465–
A	445–464
A–	415–444
B+	385–414
B	355–384
B–	335–354
C+	315–334
C	285–314
C–	265–284
D	245–264
F	0–244

Extra Points 1: You are assigned to solve a problem at the blackboard during recitation, each worth 5 points. The assignment is made through your request. You may consult me to make sure that your answer is correct.

Extra Points 2: You can earn extra points by attending analytical seminars. Please sign an attendance sheet at the end of a seminar to earn 10 points for each seminar attended. You must be seated at least 5 minutes before the seminar time. You will not earn an extra point if you enter the room after a seminar started or if you leave the room before the seminar is finished. Speakers are asked to give a 60-minute seminar including questions and answers. It, however, can be longer.

Thursday, September 18, 2025

4:00 p.m. at CSC 150

12th Annual Johannes F. Coetzee Memorial Lecture

Professor Renã A. S. Robinson, Vanderbilt University

Robust Proteomic Platforms for Large-Scale Clinical Analysis in Alzheimer's Disease

Schedule

Week	Date		Topic	Chapters
1	8/25	M	Introduction to Chemical Analysis	0–2
	27	W	Statistical Analysis of Data	3–5
2	9/1	M	No Class (Labor Day)	
	3	W		
3	8	M	Chemical Equilibrium	6–9, and 13
	10	W		
4	15	M	Polyprotic Acid and Base	10 and 11
	17	W		
5	22	M	EDTA Titrations	12
	24	W		
6	29	M	Exam 1 (125 points)	(HW 1 due)
	10/1	W	Electroanalysis	14–17
7	6	M		
	8	W		
8	13	M		
	15	W		
9	20	M	Spectrophotometry	18–22
	22	W		
10	27	M		
	29	W		
11	11/3	M	Exam 2 (125 points)	(HW 2 due)
	5	W		
12	10	M	Separation	23–26
	12	W		
13	17	M		
	19	W		

14	24 26	M W	No Class (Thanksgiving Recess) No Class (Thanksgiving Recess)	
15	12/1 3	M W		
16			Final Examination (150 points)	(HW 3 due)

Academic Integrity

Students in this course will be expected to comply with the [University of Pittsburgh's Policy on Academic Integrity](#). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

To learn more about Academic Integrity, visit the [Academic Integrity Guide](#) for an overview of the topic. For hands- on practice, complete the [Academic Integrity Modules](#).

Disability Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and [Disability Resources and Services](#) (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.