

Chemistry 241: Analytical Methods

Section 1, Spring 2012

Monday, Wednesday & Friday: 8:00 - 8:50 in Murray Hall Room G202

Professor: Domenic J. Tiani, Ph.D.

Office: Kenan Laboratories Room B128

Email: tiani@email.unc.edu. I will respond to email questions within 24 hours.

OFFICE HOURS: Monday 3:00 – 4:00 p.m., Tuesday 10:30 – 11:30 a.m. and Wednesday 3:00 – 4:00 p.m. in Kenan Labs room B128. If you cannot make any of the scheduled times please email me and set up an appointment. You may also stop by my office anytime and if I am available, I will talk with you.

CLASS WEBSITE: The website for this class is located at sakai.unc.edu. You will need to check this site daily for any new class announcements. I will also use this site to post a variety of other course information and material: course syllabus, reading assignments, problem assignments, articles, exam keys, useful websites, and grades.

PREREQUISITES: A C- or better in Chemistry 102 or 102H.

REQUIRED TEXTBOOKS

- Custom Edition: *Quantitative Chemical Analysis*, 8th ed., Daniel C. Harris.
- An E-Text version may also be purchased through W. H. Freeman's website. Contact me if you are interested in this option and I will help you with navigating the website.
- Recommended: *Solutions Manual for Quantitative Chemical Analysis*, 8th edition.

EQUIPMENT

- Two scientific calculators. Most students have a good scientific calculator (TI-XX). I strongly encourage you to purchase a less expensive basic scientific calculator as a backup calculator.
- Bring a back-up calculator and extra batteries to every exam. You will not be allowed to share calculators during exams and calculators will not be provided.
- You are not permitted to use your cellular phone in place of a calculator.

CHEMISTRY 241L

- Check-In for Chemistry 241L will begin on Monday, January 23 and continue through Thursday, January 26.

ATTENDANCE

- Regular attendance is important to your ability to succeed in this class.
- I understand that sometimes you may need to miss class. In these circumstances, talk to a fellow classmate to obtain the class notes and come see me if you have questions regarding the material you missed.
- Please be punctual to class and exams.

HOMEWORK

- Problems from the end of the chapter will be assigned for you to work after each lecture, work these problems as the material is covered in class. Do not put off the reading and problem assignments.
- Problem and reading assignments from your textbook will be posted on Sakai.
- Problem assignments are meant to assess your understanding of the lecture material; they will not be collected or graded.
- Try to work the problems with as little aid from your solution manual as possible. If you consistently find yourself turning to the solution manual to work the problems, go back and re-read the text and your notes, and then try to work the problem again.
- Try to avoid working problems to simply come up with an answer. Focus on understanding the concepts behind each problem.
- Work the example problems and the “Test Yourself” problems within the chapter.

EXAMS

- Three semester exams will be given on the following dates.

Exam 1: Friday, February 3

Exam 2: Friday, March 2 (Friday before Spring Break)

Exam 3: Wednesday, April 4

- The **Final Exam** is cumulative and is scheduled for **Saturday, April 28 from 8:00 – 11:00 a.m. in Murray Hall Room G202.**
- Class grades will be calculated as follows:

3 Semester Exams (100 points each)	300 points
Final Exam	200 points
<hr/>	
Total Points	500 points

SEMESTER EXAM REPLACEMENT POLICY

- I will replace two of your semester exam scores if you score a higher relative grade on those portions of the final exam that corresponds to the particular semester exams (acid- base equilibria, chromatography, or spectroscopy).
- The final exam will consist of four 50 point sections.

Acid-Base Equilibria
Chromatography
Spectroscopy
Electrochemistry

- To determine which semester exam scores are replaced I will first double the scores from the acid-base, chromatography, and spectroscopy sections of your final exam and then compare these scores (now out of 100) to your regular semester exam scores. I will replace the two semester exam score that will give you the largest increase in your overall class score.

Example:

Final Exam:	Section 1: Electrochemistry	40/50
	Section 2: Spectroscopy	35/50 → 70/100
	Section 3: Acid-Base Equilibria	45/50 → 90/100
	Section 4: Chromatography	40/50 → 80/100
	Final Exam Score =	160/200

Exam 1 (Acid-Base Equilibria)	60/100	Replace with 90.
Exam 2 (Chromatography)	75/100	Replace with 80.
Exam 3 (Spectroscopy)	94/100	

In the above example the student scored better on the acid-base and chromatography sections of the final, relative to their semester Exam 1 and 2 performances. The Exam 1 score (60) will be replaced with a 90 and the Exam 2 score (75) will be replaced with an 80.

- You may only use the two exam replacements if you do not miss an exam or if you have an excused exam absence. There are no make-up exams. If you miss a semester exam for any reason, and I excuse the exam absence, your section score from the final exam will be used for the missing exam score.

GRADES

The letter grades for the course will be determined based on the percentage of the total points you earned and will be assigned as follows:

Final Average	Letter Grade
93.0-100	A
90.0 – 92.9	A-
87.0 – 89.9	B+
83.0 – 86.9	B
80.0 – 82.9	B-
74.0 – 79.9	C+
66.0 – 73.9	C
60.0 – 65.9	C-
50.0 – 59.9	D
< 50.0	F

HONOR CODE: Policy adopted by the faculty of the Department of Chemistry on Sept. 9, 1977:

“Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examinations, research proposals, laboratory results and reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of

collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments which are not to be collected.”

CLASS SCHEDULE: Below is a tentative class schedule for the semester. You should note that this schedule is subject to change. Any changes will be announced ahead of time in class.

Monday	Wednesday	Friday
Jan. 9: Introduction Chapters 7 & 8	Jan. 11: Chapters 7 & 8	Jan. 13: Chapter 8
Jan. 16: Holiday No Class	Jan. 18: Chapter 8	Jan. 20: Chapters 8 & 9
Jan. 23: Chapter 9	Jan. 25: Chapters 9 & 10	Jan. 27: Chapter 10
Jan. 30: Chapters 10 & 22	Feb. 1: <i>No Class</i>	Feb. 3: Exam 1
Feb. 6: Chapter 22	Feb. 8: Chapter 22	Feb. 10: <i>No Class</i>
Feb. 13: Chapter 22	Feb. 15: Chapter 23	Feb. 17: Chapters 23 & 5
Feb. 20: Chapters 23 & 24	Feb. 22: Chapters 24 & 5	Feb. 24: <i>No Class</i>
Feb. 27: Chapter 25	Feb. 29: Chapter 25	Mar. 2: Exam 2
Mar. 5: Spring Break	Mar. 7: Spring Break	Mar. 9: Spring Break
Mar. 12: <i>No Class</i>	Mar. 14: Chapter 17	Mar. 16: Chapter 17
Mar. 19: Chapters 17 & 18	Mar. 21: Chapters 17 & 19	Mar. 23: Chapter 19
Mar. 26: Chapters 19 & 20	Mar. 28: Chapter 20	Mar. 30: Chapter 20
Apr. 2: <i>No Class</i>	Apr. 4: Exam 3	Apr. 6: Holiday No Class
Apr. 9: <i>No Class</i>	Apr. 11: Chapter 13	Apr. 13: Chapter 13
Apr. 16: Chapter 13	Apr. 18: Chapter 14	Apr. 20: <i>No Class</i>
April 23: Chapter 14	April 25: <i>No Class</i> <i>(Optional Review)</i>	