

## Chemistry 41-1 Fall 2001

### Modern Analytical Methods for Separation and Characterization

T/Th 9:30 – 10:45 AM

**Instructor:** Allison Danell (Ph.D. December, 2001)  
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**Office hours:** M 10:00 – 11:30, W 9:00 – 10:00, Th 1:30 – 3:00 (or by app't if you cannot come at these times)  
**Prerequisites:** Chem. 11  
Chem. 21 or 25H  
Math 10 (or equivalent)

*It is an honor code violation to be enrolled in a course without the proper pre- or co-requisites.*

**Required Text:** "Quantitative Chemical Analysis" 5<sup>th</sup> ed., by Daniel C. Harris

**Recommended:** "Solutions Manual for Quantitative Chemical Analysis" 5<sup>th</sup> ed., by Daniel C. Harris

**Attendance:** Attendance is mandatory at all lectures.

**Homework:** Exercises and problems from the textbook will be assigned but **NOT** collected. However, working through the homework problems will be to your advantage; the assigned problems will be representative of the material that will be covered on the exams. *You are encouraged to work with your classmates on homework problems!* Discussions within study groups are often helpful in understanding difficult concepts. If you choose to purchase the solutions manual, use it wisely. It is a good tool for checking your work, but it does not do a good job of explaining how to work a problem step by step. When preparing for an exam, if you cannot do the homework problems without referring to the solutions manual, then you will not do well on your exam.

**Textbook Appendices:** Supplementary information such as  $K_a$  values and standard reduction potentials are included in the appendices of the text. These values are not answers to homework problems! They are "known" values that must be used in homework or exam problems. They will be provided on the exams.

**Exams:** There will be three in-class midterm exams and one cumulative final exam. Equation sheets will be provided for all exams. Each in-class exam is worth 100 points. The final exam is worth 200 points. The final exam is comprised of four 50-point sections that test over the four topics covered in class (CH 10-12, CH 23-26, CH 19-21, CH 14-15). Your final grade will be the percentage calculated by dividing your total points by 500. **Note:** Material in CH 1-9 is considered review material and may appear on any midterm exam or on the final exam.

**Grade Replacement:** If you score a higher percentage on a 50-point portion of the final exam corresponding to an earlier 100-point midterm exam, your original grade on the midterm exam will be replaced with twice the point value from the corresponding 50-point section of the final exam. If you miss an hour exam during the semester **for any reason**, the corresponding part of the final exam will be used in place of the missed hour exam. No make-up midterm exams will be administered. Grade replacement is offered as a second chance to students who did not do well on midterm exams. It is not meant to encourage students to skip midterm exams altogether and have their final grades determined solely by the final exam. Take every midterm exam seriously.

**Final Exam Rescheduling:** If you have three final exams scheduled by the Office of the University Registrar within a twenty-four hour period, you may reschedule one of the exams. In the event that one of the scheduled examinations is a common final exam for a multiple-section course, that exam is the one to be rescheduled. If you need to reschedule the Chem. 41 exam, let me know **before 9/11/01**. After that date, you will not have the option to reschedule the Chem. 41 exam. Any petition for a change in the exam schedule because of the "three exams in a twenty-four hour" rule must be made to your dean's office before the first day of the final examinations.

**Final Exam Makeup:** If you miss the final exam, you must have a written excuse from Student Health Services that verifies you were ill on the day of the exam. The last day that a make-up exam may be taken is 12/17/01.

## FINAL EXAM: SATURDAY, 12/15/01, AT 8:00 AM IN VENABLE 268!

Class Meeting	Topic	Class Meeting	Topic	Important Notes!
Tuesday, 8/21	Introduction	Thursday, 8/23	Review, CH 10	
Tuesday, 8/28	CH 10	Thursday, 8/30	CH 11	8/27 Last day to add class
Tuesday, 9/4	CH 11, 12	Thursday, 9/6	CH 12	9/3 Labor Day
Tuesday, 9/11	EXAM 1 (CH 10-12)	Thursday, 9/13	CH 23	
Tuesday, 9/18	CH 23	Thursday, 9/20	CH 24	
Tuesday, 9/25	No class	Thursday, 9/27	CH 24, 25	
Tuesday, 10/2	CH 25	Thursday, 10/4	CH 26	10/1 Last day to drop class
Tuesday, 10/9	CH 26	Thursday, 10/11	EXAM 2 (CH 23-26)	
Tuesday, 10/16	CH 19	Thursday, 10/18	Fall break	10/18-10/21 Fall Break
Tuesday, 10/23	CH 19	Thursday, 10/25	CH 20, 21	
Tuesday, 10/30	CH 21	Thursday, 11/1	CH 21	
Tuesday, 11/6	EXAM 3 (CH 19-21)	Thursday, 11/8	No class	
Tuesday, 11/13	No class	Thursday, 11/15	No class	11/13 Meet to pick up exams
Tuesday, 11/20	No class	Thursday, 11/22	Thanksgiving	11/22-11/25 Thanksgiving Break
Tuesday, 11/27	CH 14	Thursday, 11/29	CH 14, 15	
Tuesday, 12/4	CH 15	Thursday, 12/6	REVIEW	12/7 Last day of classes

### HOMework ASSIGNMENTS

**Ch. 10:** B, C, D, F, G, H, 2, 3, 5, 6, 8, 11, 12, 13, 16, 17, 18, 21, 30, 31, 32, 35, 37

**Ch. 11:** A, B, C, E, F, 2, 4, 5, 10, 11, 13, 15, 16, 21, 22, 23, 25, 26, 27, 30

**Ch. 12:** A, B, D, F, 2, 4, 6, 8, 9, 12, 13, 14, 16, 17, 19, 23, 24, 26

**Ch. 23:** A, B, C, F, 1, 2, 7, 8, 9, 11, 15, 16, 18, 19, 21, 22, 23, 24, 25, 26, 28, 30, 31, 33, 36, 41, 42

**Ch. 24:** B, C, 2, 3, 5, 6, 17, 20

**Ch. 25:** A, 3, 4, 5, 6, 7, 9, 26

**Ch. 26:** B, C, 2, 3, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 25, 29, 30, 35

**Ch. 19:** A, B, 1, 2, 3, 4, 6, 8, 9, 10, 13, 16, 17, 18, 19, 23, 24, 25, 26

**Ch. 20:** C, 1, 2, 3, 8 (plus **CH 7:** 15, 16)

**Ch. 21:** 1, 3, 5, 13, 14, 15, 16, 17, 20, 21, 23, 33

**Ch. 14:** A, B, C, G, 2, 3, 10, 11, 12, 16, 24, 25, 26, 34

**Ch. 15:** C, D, 1, 6, 13, 21, 24, 28, 29, 35

*Policy adopted by the faculty of the Department of Chemistry on September 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."