

Chemistry 3120, Fall 2013

Tues: 6th Period: 12:50 pm – 1:40 pm
Thurs: 5th-6th Periods: 11:45 am – 1:40 pm

INSTRUCTOR: Professor Willard W. Harrison, 354 Leigh Hall
harrison@chem.ufl.edu Phone: 392-7009
Office hours: 3rd & 8th Periods TWTh -- or by appointment

TEXTBOOK: "Quantitative Chemical Analysis", 8th Edition, *Daniel C. Harris*, Freeman Pub, 2010.

INFORMATION: CHM 3120 explores introductory analytical chemistry and the modern methods of determining exactly what things are made of. Knowing how the composition of materials is determined can influence any number of career enhancements and opportunities.

Tentative Schedule

Weeks	Topics	Book Chapters
Aug. 21-23	Analytical Measurements	Chaps. 0, 1
Aug. 26-30	Tools(lightly), Errors, Statistics	Chaps.2, 3, 4
Sept. 3-6	Statistics (cont.), Methods Calibration	Chaps.4 ,5
Sept. 9-13	Chemical Equilibria	Chap 6
Sept. 16-20	Activity, Acid-Base Equilibria	Chaps. 7, 8
Sept. 23-27	Polyprotic Equilibria, Titrations	Chaps. 9, 10
Thurs, Sept 26	Exam One	
Sept. 30 - Oct.4	Electrochemistry	Chap. 13
Oct. 7-11	Electrodes and Potentiometry	Chap.14
Oct. 14-18	Redox Titrations, Electroanalytical	Chaps 15-16
Oct. 21-25	Spectrophotometry	Chap. 17
Thurs, Oct.24	Exam Two	
Oct. 28-Nov. 1	Spectro. Applications and Instruments	Chaps.18, 19,
Nov. 4-7	Atomic Spectroscopy	Chap. 20
Nov. 12-15	Mass Spectroscopy	Chap. 21
Nov. 18-22	Analytical Separations	Chap. 22
Nov. 21	Exam Three	
Nov. 25-26	Gas Chromatography/Liquid Chromatography	Chaps. 23, 24
Dec. 2-4	Electrophoresis	Chap. 25
Tues., Dec. 10th	Final Exam (10:00-12:00 noon)	Comprehensive

HOLIDAYS: Labor Day (Mon. Sept.2), Homecoming (Friday, November 8), Veteran's Day (Monday, Nov. 1), Thanksgiving (Wed, Thurs, Fri. Nov.27-29)

TIPS: Chemistry is very much a "learn by understanding" subject. To do well in this course, you must gain more than just a passing acquaintance with each topic. Superficial understanding = "grade death". Please use whatever auxiliary resources your text provides to gain true understanding. That means you should read and study the textbook, work assigned chapter problems, and do any other recommended problem sets until you (truly) understand the material.

Course Materials: You are responsible for all material covered during the semester. That includes the textbook and all class presentations (slides, chalkboard, and verbal). Slides will be posted on Sakai. Chalkboard and verbal material, as well as problems worked in class, do not lend themselves to Sakai posting.

EXAMS: Three progress exams and a cumulative final exam will be given. **No makeup exams will be given for any reason.** If you must be absent for an exam for some official university event, talk to

your instructor beforehand. Note that you have one “drop” exam to use for whatever reason, including unexcused absences from exams.

Students may use calculators on exams. Cell phones must be turned off and out of sight during exams.

SCORING: Your grade for the term will be determined as follows:

Progress Exams (best 2 of 3@ 200 pts each)	400 pts
Final Exam	300 pts
TOTAL	700 pts

Grades are **not** curved. The following grade cutoffs apply:

A (620), A- (600), B+ (570), B (550), B- (520), C+ (500), C (470), C- (450), D+ (420), D (400), D- (370), E (<370)

e-Learning: This is the course management system we will use. Here you will find an electronic syllabus, your grades(only you can see your grades), class announcements, and other pertinent info for the course.

To access e-Learning, go: <https://elearning.courses.ufl.edu/webct> . To log in, you must use your GatorLink username and password. If you do not yet have one, you must obtain one. If you have any problems with your GatorLink name or password, you should contact the Help Desk at 392-HELP, or go to 520 CSE for assistance.

HONOR SYSTEM: All exams are given under the Honor System. Any student caught cheating will receive a Failing grade in the course. Check the website for the UF policy on academic honesty: <http://www.dso.ufl.edu/judicial/academic.php>

CHEMISTRY LEARNING CENTER (CLC): There is free help available from graduate student teaching assistants in the CLC Monday through Friday in Flint Hall 257-258. TAs will have office hours in the CLC. TA schedules will be posted on-line in e-Learning.

ABSENCES: Only if you have an official university- excused absence (athletics, debate, etc.), will special consideration be given for missed classes. **(No make-up exams; don’t ask.)**

GRADING CONCERNS: We do our best to make all the grading accurate and fair. If you believe there was an error in the grading of an exam, first see the TA about the issue. If you remain unsatisfied or have a question, then see me. All this must be done within one week after the exam is returned to you.

PET PEEVES:

- Late arrivals (class begins sharply at **12:50 pm (T), 11:45 pm (Th)**),
- Early departures (class ends promptly at **1:40 pm**)
- Reading newspapers (or whatever) in class
- Talking in class, except to ask questions
- Cell phones (turn off the ding-a-lings; no incoming or outgoing)
- iPods, iPads, iWhatever (not in class)

All these issues involve rudeness and lack of common courtesy, which create distraction and disruption of precious class time. The anonymity of large classes may encourage some to believe such behavior is acceptable. It is not. Mutual respect – mine for you as a student, and yours for me as the instructor – requires a simple code of good manners. We should expect it from each other.

GENERAL: With these preliminaries aside, let me assure you I am delighted to have you in this class, and I want you to do well. We will cover a lot of material, fairly quickly. The best advice I can give you is to keep up. If you get behind, catching up is tough. Don’t put yourself in this position.