

Fall 2008 General & Organic Chemistry (Unique # 54455)

CH 313 N

MWF 10:00–11:00 a.m. BUR 106

Dr. John A. Colapret

Instructional Staff:

Role	Name	Office Hours	Location
Lecturer	Dr. John A. Colapret	MWF 9-10 AM	WEL 4.142
TA	Curtis Winans cwinans@mail.utexas.edu	TBA	Cubicle B: WEL 1.308

Course E-Mail: All e-mail related to CH 313N should be sent to the following address:

jcolapret@mail.cm.utexas.edu

Please include the word “CH313” in the subject line for e-mail. We will make every effort to respond to e-mail queries within 24 hours.

Course Web Site:

To reach the web site for CH 313N, point your browser to the following URL:

<http://courses.cm.utexas.edu/jcolapret/CH%20313%20N-Fall-08.htm>

The web site will be an integral component of this course! Bookmark it. It will be updated regularly with course announcements, lecture notes, suggested problems, and exam information. Important updates will also be announced in lecture, but you should plan to visit the web site regularly so you don't miss anything.

Course Materials:

TEXTBOOK: **GENERAL, ORGANIC AND BIOCHEMISTRY**. Second Ed., 2006. WH Freeman and Co, New-York. Ira Blei and George Odian.

Prerequisites:

No prerequisite-(college prerequisite).

Adds, Drops and Withdrawal:

Tuesday September 2: Last day of the official add/drop period. After this date, changes in registration require the approval of the department chair and usually the student's dean.

Friday September 12: Last day an undergraduate student may add a course except for rare and extenuating circumstances. Last day to drop the course for a possible refund.

Wednesday September 24: Last day to drop the class without possible academic penalty.

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Wednesday October 22: Last day a Q drop can/will be assigned by the instructor. You will need the approval of Dr. Colapret, your academic adviser, and your college's dean to drop the course at this point. After this date, withdrawal from the course requires a substantial non-academic reason, and can only be approved by your college's dean.

Friday December 5: Last Class Day.

All questions related to enrollment in the course should be directed to the Chemistry Lower Division Office in WEL 2.212.

Attendance:

Although attendance will not be monitored, the lectures are the heart of this course. Attendance at all lectures is expected and all students will be responsible for information and announcements presented in lecture. **Cell phones, pagers, watch alarms, etc. must be turned off during all lectures and examinations.**

Office Hours:

Please take advantage of office hours if you have any questions about the course content (lecture notes, textbook readings, homework assignments). Although e-mail has become increasingly important as a means of communication in modern society, it does not provide a convenient forum to discuss a visual subject like chemistry. The complete schedule of office hours is provided on the first page of this syllabus. Any changes to this schedule will be announced as far in advance as possible on the course web site, and if possible in lecture.

Homework:

The exams in this class require that you to solve problems. The best way to prepare for the exams, then, is to work as many practice problems as you possibly can.

Homework problems from the textbook will be suggested at the beginning of the semester. You should attempt to work these problems after you study your lecture notes. *Assigned problems from the textbook will not be collected or graded*, but you'll want to work through as many of them as possible so that you can develop the analytical skills you'll need in order to do well on the exams.

Major Exams:

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Three major exams will be given during the semester. These exams are scheduled during class time (10-11) Each exam will **tentatively** cover the range of lectures indicated below.

Exam	Coverage	Date (exam time is 10-11 a.m.)	Location
Exam #1	Lectures 1–12	Friday, 9/26	BUR-106
Exam #2	Lectures 13-23	Friday, 10/24	BUR-106
Exam #3	Lectures 24–35	Monday, 11/24	BUR-106

The exams will emphasize material covered in these lectures. Chemistry is a cumulative subject, however, so you will still be expected to know the material from earlier in the course.

All exams will be “closed book”, and you will not be allowed to use books or notes. Exams will be multiple choice. Answers will be written with pencils on scantron bubble sheets.

Please bring your valid UT ID card to all exams, since you will need to show it when attendance is taken during the exam. Exams will begin and end promptly at the stated times. **Students arriving after the first exam has been turned in will not be allowed to take the exam.** Instances of academic dishonesty will be handled according to university policy, and will likely result in failure of the course.

Conflict Exams:

Only those students having an excusable, documented conflict are eligible to take the conflict exams which will be offered before each major exam. An excusable conflict is another regularly scheduled class or lab published in the course schedule (please be prepared to provide documentation, i.e. a copy of the syllabus from the other class), or a religious observance. **An organizational meeting or a job is not an excusable conflict!!!** Students who qualify to take the conflict exams must bring the conflict to the attention of Dr. Colapret by filling out the appropriate paperwork at the Chemistry Lower Division Office (WEL 2.212) on or before Friday, September 12. The conflict exams will be scheduled through the undergrad Chemistry office (WEL 2.212). September 12 is the deadline for all conflict exam requests for the semester.

Excused Absences:

Personal problems, family vacations, weddings, etc. are not valid reasons to receive an

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excused absence. Excused absences will require appropriate documentation.

Final Examination:

The final exam is mandatory, and will be given at the time scheduled by the university registrar (Friday, Dec 12 from 2:00–5:00 p.m, BUR 106). Please note that standard final exam times are published in the Fall 2008 course schedule, so you should have been aware of this exam time when you signed up for the course! The final exam will be comprehensive. Material from the entire semester can be included. The final exam will account for 40% of your overall grade in the course. There will be **no make-up or conflict exam for the final**. Failure to take the final exam at the scheduled time and place without an approved, documented excuse will automatically result in a failing grade for the course. If an extreme medical emergency or justifiable nonacademic excuse prevents you from taking the final exam at the scheduled time, the symbol “X” (incomplete) will be assigned when final grades are reported at the end of the semester. (The procedure for making up an incomplete will be worked out on an individual basis, but almost always requires a student to take the final exam when it is given at the end of the next long semester.) In general it is best for students to see a counselor in their Dean's Office regarding non-medical excuses for missing the final.

Grading Policy:

Your final course grade will be calculated as a **weighted** numerical average, on a 100 point scale, as described below.

Weight Graded Item (max. score = 100)

40.0% Final Exam Grade

20% Each of 3 Major Exam Grade (60%)

The following conversion table will be used to determine final course letter grades*:

A range: $90.000 \leq T$

B range: $80.000 \leq T \leq 89.999$

C range: $70.000 \leq T \leq 79.999$

D range: $60.000 \leq T \leq 69.999$

F range: $T < 60.000$

*Missing a major or the final exam without a documented, excuse will automatically result in a failing grade.

Please note that letter grades in this course are based entirely on demonstrated

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performance of the exams. You *earn* the grade; I do not give the grade. Grade boundaries do need to be established, and the unavoidable consequence is that some students will finish with a “borderline” grade. **However, everyone is graded according to the same standards; to be fair to everyone, the policy in this course is to NOT adjust grades in such circumstances.** Final grades assigned according to the scheme described above will indeed be final, and will not be adjusted for any reason. Requests to do so will not be entertained.

Academic Dishonesty:

We expect each of you to conduct yourselves honorably. Students who violate the University rules on scholastic dishonesty are subject to disciplinary penalties including the possibility of failure in the course and dismissal from the University. ***The university policies on scholastic dishonesty will be strictly enforced.***

STUDY GUIDE AND TIPS FOR CHEMISTRY

Chemistry will be challenging and difficult, even for the brightest students. In this course, you will develop analytical (reasoning) thinking skills to solve chemistry problems. This is an acquired skill, which takes time to develop. Although it will require some memorizing of facts, memorization alone will not be sufficient. You must apply these tools, in an analytical fashion to solve problems. Follow these important guides for you to be successful:

1. **DO NOT FALL BEHIND.** There is a large volume of material to be covered and each concept is built upon the previous one; this means that the material is cumulative. Get into the habit of reviewing each day's lecture and the previous days lecture; you will see how the whole is related to the parts. **A good way to do this is to re-copy your class notes.** You can add material and other hints and you will quickly recognize things you do not understand. Ask for help that day!
2. **OUTLINE THE TEXT.** This sounds like it would require too much time. However, you will be reading the textbook anyway, so an outline is an effective way to condense the material and merge it with your class notes. A complete outline will save you hours of study time when you are reviewing for exams.
3. **UNDERSTAND THE BASICS.** All of chemistry is governed by the basic laws of physics and mathematics. We will not be dealing with the high levels of math in this class. Regardless of the topic, try to identify the basic underlying principle. This approach will always be presented in the lecture.
4. **DEVELOP YOUR ANALYTICAL THINKING.** This is an acquired skill; all of us have had to learn it. One of the best ways to develop this cognitive process is to solve as many problems as you can. Homework sets will be suggested, but all the problems at the end of the chapters deserve attention. Some of those will appear on the major exams.
5. **BRAIN MAINTENANCE.** This material is intense and you can only absorb a finite amount of material in any one study session. You have other courses to study as well. Arrange a daily schedule so that you mix in a non science course with your science courses; take a study break at least every 2 hrs; exercise and eat balance meals, your brain requires oxygen and glucose to function properly; get plenty of sleep; if you plan to be up late, take a nap in the late afternoon. A certain amount of school (course) anxiety will be natural, but your best defense against it will be thorough preparation.

Course Outline

General Chemistry Section

Chapter	Title
1	The language of Chemistry
2	Atomic Structure
3	Molecules and Chemical Bonds
4	Chemical Calculations
5	The Physical Properties of Gases
6	Interactions Between Molecules
7	Solutions
8	Chemical Reactions
9	Acids, Bases, and Buffers
10	Chemical and Biological Effects of Radiation

Organic Chemistry Section

Chapter	Title
11	Saturated Hydrocarbons
12	Unsaturated Hydrocarbons
13	Alcohols, Phenols, Ethers, and Their Sulfur Analogues
14	Aldehydes and Ketones
15	Carboxylic Acids, Esters, and Other Acid Derivatives
16	Amines and Amides
17	Stereoisomerism