Chemistry 141
Spring 2003

Instructor: Ms. Coonce
Office: 216 Pierce Hall
E-mail: jmgray@learnlink.emory.edu (Janet Gray Coonce)
Office hours:

Mon. 1-3, Tues 10-11, 1-3

You are always welcome to stop by my office anytime. If I am not available, please leave a message on my dry erase board - I also check my e-mail regularly.

Text. "General Chemistry, An Integrated Approach," 3rd ed., by Hill and Petrucci
Optional (and recommended): Study guide, selected solutions manual.
Laboratory manual: sold by the Chemistry Department.
Carbon-copy lab notebook.
Safety glasses for lab.

You must have all three materials for lab before your first lab meeting (Thurs, Jan. 23).

Attendance. All students are expected to attend all lecture and laboratory sessions. However, it is recognized that emergencies may arise which may necessitate absences from class. You should notify me if an absence is due to illness or other emergency. You are responsible for all material covered in lecture if absent.

You are allowed 3 absences in lecture and NO ABSENCES in lab.

If you exceed the 3 absence limit in lecture for whatever reason, you will lose 1 point for the next absence (number 4), 2 points for the next absence (number 5), and 3 points for each additional absence (numbers 6 and up). These points will be deducted from the final course average.

Make-up exams are not given, regardless of the reason an exam was missed. If you miss an exam and present me with an acceptable excuse, the grade on the final exam will count in place of the missed exam grade. You must notify me by the day and time of the exam that you will not be present and you must give me the reason for the absence. If the excuse is not considered acceptable, the exam grade will be a zero. It is up to me as the instructor to make the determination as to whether an excuse is acceptable. In general, illness or an emergency situation are the only acceptable excuses for missing an exam. Missing an exam also counts as an absence in the course.

Being late to class is rude and distracting. Therefore, 3 tardies will be considered equal to 1 absence. If you come in more than 15 minutes tardy , you will be counted absent. If you come in late, it is your responsibility to see me immediately after class to ensure that you are marked tardy and not absent. No adjustments will be made at a later time. If you are continuously tardy, you may be excluded from further classroom attendance. When you are in class, you must be attentive and not disturb others. Leaving a class early counts as an absence, as does sleeping through a class or being generally inattentive.

Cell phones and pagers are not allowed in class or lab. Food and drink are not allowed in class or lab; however, beverages in spill-proof containers may be brought into class.

Oxford College and Liberal Arts. Oxford College is dedicated to a liberal arts education, and science, including chemistry, is an integral part of the liberal arts. In this course, you will have an opportunity to master these liberal arts skills (see the class LearnLink conference for more information):

Learning Goals. The primary learning goals for this class are for you to:

- Utilize critical thought and reasoning to understand chemical behavior at the microscopic and macroscopic levels.
- From your knowledge of chemistry and chemical systems, be able to develop solutions to problems which you have not encountered before.

Course Objectives. You will be expected to master these areas of chemistry (for a more detailed list of the content, see the class LearnLink conference):

- The scientific method
- Conversion between different measuring systems
- Significant figures
- The structure of the atom
- Nomenclature
- Molecular mass and moles
- Stoichiometry
- Reactions in aqueous solution
- Molarity
- Gases
- Thermochemistry
- Quantum theory and electromagnetic radiation
- Electron configurations
- The periodic table
- Bonding
- Molecular geometry and hybridization

- Intermolecular forces
- Phases of matter

Problems. At the end of each chapter, there are problems which you should work to help you in understanding the material. These problems are for your benefit only; they will not be taken up or graded. Since general chemistry is a problem-oriented course, and the tests will consist mainly of problems, it is essential that you become proficient in working problems such as those found at the end of the chapters. You should work problems as you encounter the material. You should also attempt each problem before seeking help from the book, your notes, or the answer. It is not sufficient to be able to follow how a problem is worked; on a test, you will have to work a problem all the way through, and the only way you will be able to do this is if you have worked numerous practice problems.

Tests. There will be 4 exams, given approximately every 3-4 weeks. These will be given in class. Each exam will last 55 minutes. For an exam, you may bring only a calculator and pencils; any other material will be given out with the exam. Make sure your calculator is working and that you know how to use it. Calculators will not be loaned. Storing class information (ie. rules for sig. figs, solubility, naming, etc.) in your calculator for reference during the test is considered a violation of the honor code. You must take the exam during your regular class time. If you come in late, you will not be given extra time to finish the exam. The honor code applies to all exams.

Each exam will also include a short essay that must be completed one week prior to the exam date. The essay must be typed or word-processed and double-spaced, using 12-point type and black ink. The essay must be printed – electronic submission is not acceptable. If more than one page, the pages must be stapled. Part of your grade on the essay will be based on your writing -- grammar, spelling, and punctuation. You should run a spell checker and proof-read. Essays that are hand written, essays not double-spaced, and essays electronically submitted are not acceptable. For the essay, you may use internet and written references, but giving or receiving assistance from any person is an Honor Code violation.

Essay topics will be announced in class and posted on the learnlink class conference and will be due one week prior to each exam.

Oxford College has adopted as part of its Mission Statement that its curriculum is designed to teach students to "embrace responsible citizenship." In addition, as part of its Purpose Statement, the College lists "to augment the student's ... intellectual awareness of the world". To encourage you to become aware of the world around you, most exams will have one bonus question on "current events."

Honor Code. It is assumed that all Oxford College students will adhere to the highest standards of academic honesty and will uphold the Oxford College Honor Code.

On exams, you may not use any material not distributed with the exam itself except for a calculator and pencils/pens. Any other material you bring into the room must be left at the front of the room. During an examination, you may not give or receive assistance. On assignments for outside class (essays, lab reports), the work is to be your work alone – you may not give or receive any assistance, and you may use only materials authorized. Since absences and tardies can affect your grade, giving false information regarding absences or tardies is a violation of the Honor Code. Note also that the Oxford College Honor Code expects students to report any violations of the Code they know of.

Schedule.

Ch. 1
Ch. 2, sections 1-8
Ch. 3, sections 1-5, 7-11
Ch. 4,
Ch. 5
Ch. 6
Ch. 7
Ch. 8
Ch. 9 (and 2.9-2.10)
Ch. 10, sections 1-5,8-9
Ch. 11

Note that this schedule is subject to change. The sections covered for each exam will be announced in class. We may cover additional material after chapter 11.

Preparation for class. Read ahead and be prepared to answer questions during the lecture. Complete all recommended practice problems immediately after the topic is covered in lecture.

Extra-credit pop-quizzes are always a possibility!

Review sessions. A review session will be held before each exam; the date and time will be announced in class. If held outside of class, these sessions are optional and voluntary; no new material will be covered. If held in class, attendance will count as it would for a regular class session, since the review normally will not take the entire class period.

Laboratory. The lecture and laboratory are designed to coordinate so that you will have covered material in class before being required to use that material in lab. As you will note under

Grading, there are penalties assessed for a low lab average and for low individual lab grades.
Lab will begin on Thursday, Jan. 23 at 2:30 in Pierce 201.

Grading. The final will count as two exam grades, giving a total of 6 (4 exams + final counting twice). The lowest of these 6 grades will be dropped. This average will constitute the lecture portion of your course grade.

Your lab grade will count in one of two ways, whichever results in a higher grade in the course for you:

(1) Your course grade will be computed by adjusting your grade on the lecture portion using your lab average as shown below. This method normally benefits students whose exam average is a high B or an A.

93 and up	+2	73 - 75	-4
90 - 92	+1	70 - 72	-5
85 - 89	no adjustment	67 - 69	-6
82 - 84	-1	64 - 66	-7
79 - 81	-2	61 - 63	-8
76 - 78	-3	58 - 60	-9
		57 and below	-10

OR

(2) Your course grade will be computed by taking 80% of your lecture grade and 20% of your lab grade. This method usually benefits students whose exam average is a B or lower. You must pass both the lecture AND the lab portions of the course or you will receive an F.

Grading scale. Grades are normally assigned as follows, with no rounding:

93 - 100 A	77 - 79 C+
90 - 92 A-	73 - 76 C
87 - 89 B+	70 - 72 C-
83 - 86 B	67 - 69 D+
80 - 82 B-	60 - 66 D
	below 60 F

Exam schedule.

Exam I Wednesday, Feb. 5
Exam II Friday, Feb. 28
Exam III Friday, Mar. 28
Exam IV Wednesday, April 23

Exams may be moved to the next class meeting if necessary to cover the material.

Final Exam. There will be a final exam, covering the semester's material. This will be given during the regularly scheduled final exam period.

CHEMISTRY 141 LABORATORY
SYLLABUS

Spring 2003

This information, along with pages 1 – 11 of the Chemistry 141-142 Laboratory Manual, 13th edition, 2002-2003, constitutes the syllabus for Chemistry 141 lab. It is your responsibility to know and follow the syllabus.

1. Lab reports must be turned in before Monday (4:30PM) following your laboratory session.

Your graded lab report will be returned at your next lab meeting and discussed, in pre-lab. You should make sure you understand the reason for any points you lost.

2. You are responsible for knowing how the Oxford College Honor Code applies to Chem 141 lab. Make sure you understand the provisions of the Honor Code as well as the information regarding the Honor Code on the pledge you are signing. If you have any doubt as to how the Honor Code applies to any assignment, ask your instructor!

3. There will be quizzes for most of the experiments. You will take the quiz at the end of lab, just before you leave. The quiz will be short (5 minutes or so) and will be based on the experiment you did the previous week and the graded report that was returned to you in pre-lab. It would be a good idea to look back over that graded report before taking the quiz. The average of all the quiz grades will constitute an additional lab grade.

4. At the end of the semester, you will write a short statement reflecting on your experience with lab; details will be announced later. While you will not be graded on this, if you do not write this statement, your quiz grade average will be reduced to zero.

5. In Chemistry 141 lab, you will write three formal summaries, for Experiments 2, 5, and 8 (see the lab schedule). Your grade on a formal summary will be based on two components –content/organization and style. Content includes completeness and correctness of the information; organization includes placing the information in the correct places. Style

includes correct scientific writing style as well as correct grammar and spelling. For the experiments where you turn in a formal summary, you will also be given a grade for the experiment based on your report sheet. Thus, YOU MUST STILL TURN IN THE REPORT SHEETS FOR THESE EXPERIMENTS. The formal summary is due one week after the experiment, at your next regular lab meeting. If a formal summary is turned in late, there will be the same penalty as for late lab reports – 5 points per day or any fraction of a day. A formal summary is strictly limited to ONE page. It must be double-spaced, with 12-point type size and at least 1-inch margins, and printed in black ink. Make sure your name is on it.

It is a violation of the Honor Code to copy or use in any way any portion of another student's formal summary; this includes summaries from previous years as well as the current semester. Your formal summary must be your work and your work alone.

The lowest grade of the three formal summaries will be dropped; the remaining two will each count as an additional report grade. Thus, you will have 14 grades in lab: 10 lab reports on the experiments you performed, your two best formal summaries, your quiz average, and your lab instructor's evaluation. Your lab grade will be the average of these 14 grades. See your course syllabus for how the lab grade is used in determining your course grade.