

# CHEMISTRY 141-09A

FALL 2009

<b>CLASS SCHEDULE:</b>	MWF – 9:35-10:25 AM - Pierce 201
<b>INSTRUCTOR:</b>	Dr. Nichole Powell
<b>OFFICE LOCATION:</b>	Pierce 202
<b>OFFICE HOURS:</b>	Designated hours: Mon and Thurs 1 – 2:30 pm. You may stop by my office at any other time or make an appointment via email.
<b>CONTACT INFORMATION:</b>	<b>Email:</b> nichole.powell@emory.edu <b>Telephone:</b> 770-784-8396

**1. 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:

- Reasoning:
  1. Problem-Solving
  2. Critical Thinking
  3. Logic
  4. Calculation/Computation
  5. Investigation
  6. Analysis of data
  
- Language
  1. Listening and interpreting
  2. Reading
  3. Writing
  
- Aesthetics
  1. Observing
  2. Seeing relationships among form, pattern, harmony, and shape
  
- Imagination
  1. Prediction
  2. Developing scientific insight (hypotheses)

**2. 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.

**3. Content goals.** You will be expected to master these areas of chemistry:

- The scientific method
- Conversion between different measuring systems
- Significant figures
- The structure of the atom

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- 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
- Organic chemistry

### CLASS MATERIALS (REQUIRED):

1. "Chemistry: A Molecular Approach" by Tro (including solutions manual)
2. Non-programmable scientific calculator (must be brought to every class). Students will not be allowed to borrow calculators from their classmates during class assignments, quizzes, or exams. The use of cell phones and PDAs will not be allowed.

For Lab – must have before your first lab meeting

3. Laboratory manual: sold by the Chemistry Department.
4. Carbon-copy lab notebook.
5. Safety glasses.

### COURSE COMPONENTS:

#### ATTENDANCE

Students are expected to attend each class period. You are allowed 3 absences in lecture and NO absences in lab. Each absence exceeding 3 absences will result in a corresponding point deduction from your final course grade (eg. 4 absences= 1 pt, 5 absences= 2 pts etc). There are no excused absences.

#### ASSIGNMENTS

Students are expected to complete all assignments regardless of whether or not they will be graded. Students are expected to work all the end of chapter problems in their textbook.

#### POP QUIZZES

Pop quizzes will be given during the first 5 minutes of class throughout the semester. These quizzes are unannounced and will be used to assess your understanding of the course content. Pop quizzes will primarily assess the content covered in the previous class session.

#### EXAMINATIONS

Four (4) exams are scheduled during the regular class period. No make-up examinations will be given. Excuses including the reason for missing an exam must be presented **before** the scheduled exam- this may be done by email or sending a note to class. If the excuse is accepted, the grade obtained on the final exam will count in place of the missed exam. If your excuse is not accepted you will receive a zero for that exam. You may only be excused from missing 1 exam.

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### Anticipated Exam Schedule:

#1	Friday, Sept 18
#2	Friday, Oct 9
#3	Friday, Nov 6
#4	Friday, Dec 4

Exam dates are subject to change. The sections to be covered in each exam will be announced in class.

**Final Exam** - will be given during the final exam period on Tuesday, Dec. 15 at 9am-12 pm. The final examination is mandatory and will be comprehensive. Any material discussed during the semester may be included in this exam. Final exams will not be returned.

### **GRADING:**

(a) 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.

Exception: If you have a zero on an exam due to missing the exam without a valid excuse no grade will be dropped, including the zero.

(b) 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, and only applies to those with lab averages above 90.

Lab average	Lecture grade adjustment
90 to 92	+1
93 and up	+2

----- **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.

### GRADING SCALE

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

Note: You must have a passing grade in both lecture and lab to pass the course. If you fail either the lecture or the lab you will receive an "F" in the course

### HONOR CODE

It is expected that students will adhere to the Honor Code. It is expected that students will not cheat, contribute to or condone the cheating of others. You are therefore expected to submit your

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own best effort on all assignments. Exams will not be proctored unless it is believed that the Honor Code is being violated. Pens/pencils and a non-programmable calculator are the only tools you are allowed to bring to and use in exams. Unless otherwise specified, collaboration is not allowed in any assignment to be submitted – including laboratory reports.

### REVIEW SESSIONS

A review session will be held prior to each exam. The date and time will be announced in class.

### LEARNLINK AND BLACKBOARD

Blackboard will be the primary means of communicating outside of class. It will also house supplementary course resources. Students are also expected to read the class LearnLink conference (under Oxford Chemistry) regularly, as well as any subconferences within it.

### COURSE SCHEDULE

Chap. 1	Chap. 7
Chap. 2	Chap. 8
Chap. 3	Chap. 9
Chap. 4	Chap. 20 (brief overview)
Chap. 5	Chap. 10
Chap. 6	

The course schedule is subject to change. The sections to be covered in each exam will be announced in class.