

**Instructor:** Sean J. Mo, Ph.D.**Office:** Humanities 110**Phone:** x 44514**e-mail:** sean.mo@emory.edu**Office hours:** Mon. & Tues.: 4:00 – 5:30p and Fri: by appointment between 1:30-5:00p**Learning Goals:** You should demonstrate you can:

- Utilize critical thought and reasoning to understand chemical behavior at the microscopic and macroscopic levels.
- Develop solutions to problems which you have not encountered before.
- Apply fundamental chemical concepts to examine and to explore complex systems around us.

**Course Description:** In this course, you will explore introductory topics in chemistry. The course is designed to be a gateway course for the sciences: chemistry, biochemistry, biology, NBB and physics. The topics covered in this class will range from the scientific method, significant figures, the concept of mole, the structure of the atom, ionic and molecular compounds, stoichiometry, reactions in aqueous solutions, molarity, gases, thermochemistry, quantum theory and the electromagnetic radiation, the periodic table and other key topics. At the conclusion of this course, you will gain the expertise in both quantitative and qualitative chemical problem solving and reasoning. Furthermore, the laboratory component of the course will give you the hands-on skills required to succeed in the upper level chemistry and natural science courses.

**Text and Materials:****Class:**

- “Chemistry” 11<sup>th</sup> ed., by Change, McGraw-Hill, 2013 (Required), Student study guide and solution manual (Optional)
- A non-programmable scientific calculator that can handle power-of-ten scientific notation for numbers
- An open mind, willingness to learn, and dedication.

**Lab:**

- Laboratory manual, sold by the Chemistry Department
- Carbon-copy lab notebook, sold at the Oxford Bookstore
- Approved safety glasses

You must have all three items for lab before your first lab.

**Class:** In this course, when needed, additional lecture materials will be posted on the class Blackboard site, or handed out in class. The purpose of posting the lectures and handing out the crucial lecture material is to allow you to listen to the lecture and class discussion. It is not to allow you to skip class and assume that you can learn everything from the posted lectures. As you will see, everything that we do in class is not posted on the web.

**Assignments:** Problems will be assigned in class. These problems will not be collected or graded. However, you will be required to bring solved problems and participate in the class discussion. Furthermore, it will be beneficial for you to work through as many problems as possible to master the topics. As the old adage goes, “practice makes perfect.” Personally, I prefer, “*le hasard ne favorise que les esprits prepares*” by Louis Pasteur.

**Laboratory:** Laboratory attendance is **mandatory**. Make-up labs are not given.\* First missed lab will result in a zero point for the lab. The second missed lab results in an automatic failure of the class. At your first lab meeting, the lab procedure will be explained to you. \*Exemptions are provided for medical, religious, and special reasons.

**Participation:** Prompt attendance is expected at every class meeting. Your participation grade will be largely based on your attendance and group discussion/problem solving.

\*\* Please do not use your mobile/smart phone during class. Texting or using apps on your phone will be disruptive not only to your learning, but also to those that are around you. If you are caught using the phone for the first time, you will be given a **warning**. If you are caught using the phone, your grade will be deducted 2 points per citation starting on your **second offense**.

**Proper Behavior in Class:** Class is a learning environment; expected behavior includes:

- Coming to class on time and being attentive in class.
- Participating in class.
- Not going in and out of class (unless you're sick) – please get a drink or use the restroom before or after class.
- Not eating or drinking in class. Water bottles are acceptable.
- Not working on material for another class.
- Not bringing a laptop computer to class. If there is a reason you need a computer to assist you in class, make arrangements with me.
- Bringing your textook and all handouts to each class.

Not respecting the learning environment in class can affect your grade and future recommendations.

**Attendance:**

- Students are expected to attend all class meetings. However emergencies can arise which may result in absence from class. It would be a good idea to notify me if an absence is due to illness or other emergency. You are responsible for all material covered if absent.
- You are allowed 3 absences in class. If you exceed the 3 absence limit for any reason, by any combination of absences or tardies, you will:
  - (a) Lose 3 points for the next 2 absences (numbers 4 and 5);
  - (b) Lose 4 points for each additional absence (numbers 6 and up).

These points will be deducted from the final average. Note that there are no “excused” absences.

- Besides missing class, these also count as an absence:
  1. Being late to class TWICE. (This means coming in after I’ve finished checking the class roster.) If you come in late, it is your responsibility to see me immediately after class to ensure that you are marked as being tardy and not absent. No adjustments will be made at a later time.
  2. Coming to class more than 15 minutes late
  3. Leaving class early
  4. Going in and out of class
  5. Being inattentive in class or working on other assignments in class

**Quizzes:** There will be four (4) quizzes throughout the semester to reinforce the contents covered in class. The quizzes will take place at the beginning of the class on assigned days. Quiz dates will be announced in class. There will NOT be make-up quizzes. Your top three quiz scores will be counted towards your final quiz score. Your lowest quiz score will not count towards your final quiz score.

**Exams:** There will be four (4) exams throughout the semester. There will NOT be make-up exams 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 starting 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.

In general, illness or an emergency situation are the only acceptable excuses for missing an exam. If you are going to miss an exam for a religious holiday or for a school-related activity, you must make arrangements to take the exam early. Missing an exam also counts as an absence in the course. The grade on the final exam can only replace one missed exam; additional missed exams will receive a grade of zero.

Grading	Items	Points	Date	Materials Covered
	Exam 1	100	Feb. 6 <sup>th</sup> (Thursday)	consult Schedule 1
	Exam 2	100	Feb. 27 <sup>th</sup> (Thursday)	consult Schedule 2
	Exam 3	100	Mar. 27 <sup>th</sup> (Thursday)	consult Schedule 3
	Exam 4	100	Apr. 24 <sup>th</sup> (Thursday)	consult Schedule 4
	Exam - Final	200	May. 1 <sup>st</sup> (Thursday): 2:00-5:00pm	

\*Exams may be moved forward or backward as necessary; this will be announced in class and on the class Blackboard site.\*

Quizzes	100	in class (four quizzes)
Participation	100	based on attendance and group discussion/problems

Lab*	200	from CHEM141L
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**Total Points:** 1,000

100-93.0%: A	89.9-87.0%: B+	79.9-77.0%: C+	69.9-67.0%: D+
92.9-90.0%: A-	86.9-83.0%: B	76.9-73.0%: C	66.9-63.0%: D
	82.9-80.0%: B-	72.9-70.0%: C-	below 63.0%: F

Your exam average **and** your lab average must both be passing (63.0% or higher) or you will receive a grade of F in the course regardless of your final numerical average.

**Error in Grading:** If there appears to be an error in grading, submit your request in *writing* via e-mail within **48 hours** after the exam or quiz is returned. If your work is submitted for re-grading, I reserve the right to re-grade the entire exam or quiz.

#### Schedule:

Ch. 1	Ch. 7
Ch. 2, sections 1-7	Ch. 8
Ch. 3	Ch. 9
Ch. 4, sections 5, 7, 1-4	Ch. 10
Ch. 5	Ch. 24 (brief overview)
Ch. 7	

Note that this schedule is subject to change. The sections covered for each exam will be announced in class.

#### Study Hints:

Everyone has his/her own methods of study. Chances are you will find that different methods work best for different classes. You may want to try studying with others in your class...you'll be amazed at what your peers do and do not know. Trade your understanding with someone else's. Do not wait for the night before the exam, or even the night before that! I cannot predict what will work for each of you; however, I will stress the importance of a few essentials:

- 1) Attend all lectures and compare/re-write notes with a classmate,
- 2) Read the assigned sections in your text and use these readings to supplement your lecture notes,
- 3) Attend all laboratories (this is actually mandatory!),
- 4) Take advantage of help, be it my office hours, exam review sessions, or SI sessions.

Remember to study following each class, as this will assist you in retaining the content knowledge.

## **CHEMISTRY 141 Dr. Mo's class**

### **HONOR CODE PLEDGE**

The Oxford College Honor Code applies to Chemistry 141. You should be familiar with the Honor Code. Some specific applications in this course include, but are not limited to:

1. On an exam, you may not give or receive assistance. Other than your own calculator and pen or pencil, you may use only the materials and data provided with the exam. You may not have any other material with you – this includes books, notebooks, book bags, papers, etc. Anything you bring with you must be left at the front of the room. You may not have a cell phone or other electronic device with you; if you bring these, they must be left at the front of the room also (and must be turned off). Your calculator must be an acceptable one (see the syllabus); a cell phone may not be used as a calculator.
2. You may not receive information about an exam from a student who has taken the exam and you may not give information about an exam to a student who has not taken the exam.
3. Since absences can affect your course grade, giving false information about absences and tardies is a violation of the Honor Code.

You should be aware that as the instructor, I am obligated to report any suspected Honor Code violations to the Honor Council for investigation. Should you be found guilty of violating the Honor Code by the Honor Council, you should be aware that the usual penalty is an F in the course.

“I have read the Honor Code of Oxford College and the above statements as to how the Honor Code applies for this course. I understand them and I agree to abide by them.”

Name \_\_\_\_\_  
(print name)

Signed \_\_\_\_\_

Date \_\_\_\_\_