

## **Chem\_OX 202 Fall 2018**

### **Principles of Reactivity**

**Instructor:** Dr. Simba Nkomo

**Office:** Oxford Science Building 204

**Phone:** 770 784 8433

**Email:** [simbarashe.nkomo@emory.edu](mailto:simbarashe.nkomo@emory.edu)

#### **Office Hours**

**Monday** 10:00 -11:30 am, **Wednesday** 3:30 - 5:00 pm, and by appointment. You can stop by my office at any time and check with me if am able to assist you at that time.

#### **Class Schedule**

**Section 1:** Monday, Wednesday, and Friday, 8:00 am -8:50 am, OSB 423

**Section 2:** Monday, Wednesday, and Friday, 9:00 am -9:50 am, OSB 423

**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.

#### **Learning goals**

The primary goals of this class are

- 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 physical chemistry principles to address current challenges in our everyday lives.

#### **Course Materials**

- Textbook: The ebook is available through McGraw-Hill Connect. Purchase the access code from the bookstore. ( Burdge/Overby: Chemistry Atoms First 3<sup>rd</sup> edition and Carey: Organic Chemistry 10<sup>th</sup> edition)
- Optional: Solutions manual (also available on reserve in the library)
- Non-programmable scientific calculator and should be brought to every class.
- ALEKS Registration. The section code will be made available. (See Canvas for details)
- “Molecular Visions ” Model Kit you might want to buy one and share it among others

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

- Thermodynamics and Collision Theory
- Introduction to Equilibrium and Le Chatelier's Principle
- Acid-Base Chemistry
- Kinetics and Substitution Reactions

Some sections and skills will be covered using ALEKS. The content area and sequence will be updated as we go.

**Exam Schedule.**

Exam Material Covered Projected Date

Exam	Tentative Date
I	Sept 21
II	Oct 12
III	Nov 2
IV	Nov 30

**Final Exam: Section 1: Thursday, Dec 13, 2018      Time: 9:00 AM – 12:00 PM**  
**Section 2: Thursday, Dec 13, 2018      Time: 2:00 PM – 5:00 PM**

\*Exams (1-IV) may be moved forwards or backwards as necessary; this will be announced in class and on the class Canvas site.

Let me know ahead of time if there is any conflict. The Final Exam will be taken as scheduled. Account for the schedule of exams as you make your travel plans.

No make-up examinations will be given. Any excuse for missing an exam or conflicts such as religious holidays or school-related trips should be presented before the scheduled exam by email. Emory's official list of religious holidays may be found at [http://www.religiouslife.emory.edu/faith\\_traditions/holidays.html](http://www.religiouslife.emory.edu/faith_traditions/holidays.html).

If possible, you will take the exam at an earlier date. For other acceptable excuses such as illness or family emergency, the final exam will replace the missed exam. If the excuse is not considered acceptable, the exam grade will be a zero. Note that 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**

Exams (4)	64%
Final Exam	22%
ALEKS Objectives	4%
ALEKS Assessment	2%
Connect Assignments	4%
Quizzes & In-Class Assignments	2%
Group Assignments	2%
<u>LearnSmart (bonus)</u>	<u>1%</u>
TOTAL	101(with bonus)

The final exam is cumulative and it will be worth 200 points. Divide by 2 to put the final exam on a 100-point scale. If your final exam grade (on a 100-point scale) is higher than your lowest exam grade, that exam grade will be replaced by your grade on the final exam.

Your final exam will NOT replace your lowest grade, if

- (1) you missed an exam for a reason that was not acceptable.
- (2) you violated the honor code

Any attendance penalty will be applied to the class average.

## **Grading scale.**

Grades are normally assigned as follows:

93.0 and up A	77.0 – 79.9 C+
90.0 – 92.9 A-	73.0 – 76.9 C
87.0 – 89.9 B+	70.0 – 72.9 C-
83.0 – 86.9 B	67.0 – 69.9 D+
80.0 – 82.9 B-	60.0 – 66.9 D
60.0 and below F	

**Note:** You must score above 50% on the final exam of the course. You will receive an F grade if you score less than 50% on the final exam regardless of your final course average.

Grades are assigned based on your performance in the course (exams, quizzes, worksheets, attendance etc) and are not open for discussion after being assigned.

Grades are not automatically rounded. If you are near a border of 2 grades, consideration is given to such items as attendance, improvement over the semester, and class participation.

### *Grading errors:*

If there are any errors or you have questions, submit a request **in writing** for a re-grade in writing no later than 3 days after the exam was returned. Please note that, if you request a regrade, I will check the whole assignment or exam paper. You may lose or gain points in the process.

Quiz and Exam keys will be posted on Canvas after the exam is returned in class. Do not download the keys.

### **Academic Honor**

It is the student's responsibility to understand the rules and procedures of the Oxford College Academic Honor Code (<http://oxford.emory.edu/catalog/regulations/honor-code.html>). Exams and quizzes require independent effort. You are encouraged to seek help from other students, instructor or any other sources for your practice problem sets. You must acknowledge any assistance, collaboration or sources used. Do not simply copy answers from the solution's manual. It is important for you to understand the process and rationale leading to the answer.

### **Accommodations**

The Office of Accessibility Services (OAS) works with students who have disabilities to provide reasonable accommodations. In order to receive consideration for reasonable accommodations, please contact the OAS and complete the registration process. Faculty may not legally provide you with accommodations until an accommodation letter has been processed and discussed with them; accommodations do not start until this point and are not retroactive. Students registered with OAS who receive a letter outlining specific academic accommodations are thus strongly encouraged to immediately coordinate a meeting with their professors to discuss a protocol to implement accommodations that will (or may) be needed over the course of the semester. This meeting should occur as early in the term as possible. Contact Megan Bohinc in OAS for more information at (770) 784-4690 or [oas\\_oxford@emory.edu](mailto:oas_oxford@emory.edu)

### **Attendance and Make-up**

Students are expected to attend all regular scheduled meetings. It is in your best interest to come to lectures. I encourage you to notify me in the event of an emergency, which may result in an absence.

You are allowed 3 absences without any point loss. If your cumulative absences exceed 3, points will be deducted as follows:

1. 1 point for 4 absences
2. 2 points for 5 absences
3. 3 points for 6 and beyond absences

The points will be deducted from your final class average.

You will lose one point for coming to class LATE twice. Coming into class after I have finished checking the roster counts as LATE. If you come to class 15 minutes late or leave the class early, that counts as an ABSENCE.

No make-up exams will be given. Snow days do not count as absent.

### **Quizzes & Other In-Class Assignments**

The problems are designed to provide formative assessments of your progress and improve your learning experience. These will include assignments include, but not limited to, in-class problems, follow-up problems, worksheet assignments, quizzes, and research-type problems. These are given on an ongoing basis. You will be notified in class the assignments that will be graded.

The nature of questions will vary from conceptual to application-type questions. You are expected to work independently. Always bring your scientific calculator to class. **You will drop your two lowest grades in this group.** No make-up assignment will be given.

### **ALEKS**

There will be assignments on ALEKS that you will need to **complete by the due date to get full credit for your correct answers.** A final assessment assignment will be given after the due date of the last assignment. ALEKS assignments and the final assessment will be graded and contribute to your final grade. ALEKS will give you additional practice and tutoring on content you need to master as you prepare for your classes and exams. Please read the ALEKS registration document on Canvas.

### **LearnSmart**

LearnSmart will give you practice on each section of topics and will help you in understanding the material as you study. LearnSmart problems are for your benefit. Completion of these exercises will earn you **1% bonus** on your final grade. You should work problems as you encounter the material.

### **Practice Problem Sets**

Practice problems sets will be posted at the end of the chapter. The problem sets are designed to build your skills and simultaneously provide me with the opportunity to assess areas that need re-emphasis to ensure that you understand the essential material. You are allowed and encouraged to come and check your answer with me. You are expected to read the literature in the required textbook, and complete all assigned assessment exercises prior to attending class in order to actively and meaningfully participate during each lecture.

## **Group Assignments**

For most of the worksheet assignments, you will work in groups and each member will be assigned the group score. You will also be asked to assign percentage contributions for each member of the group. You will be assigned half the group score, if your contribution is less than 50%, but not zero, of the highest group member contribution. Group assignment grades contribute to your final average. Late worksheets will be graded but 2 points deducted for each day past the deadline. **You will drop your lowest grades in this group**

## **Feedback Guide**

Below is the key to some of the short forms that will be used to provide feedback on graded assignments.

CAL – calculation error

CON – inadequate understanding of concept

CF – problems with conversion factor

FORM – incorrect formula or wrong use of formula

SF – problems with significant figures and/or units

## **Electronic Devices**

Use of cell phones, ipads, laptops etc will not be allowed during class activities. If there are special circumstances where you need to use your electronic device in class, please make arrangements with me beforehand. If there are sections of the course that would require us to use any of these electronics, you will be advised.

## **Additional Information and Handouts**

Additional helpful handouts and resources will be posted on **Canvas**.

**Student work submitted as part of this course may be reviewed by Oxford College and Emory College faculty and staff for the purposes of improving instruction and enhancing Emory education.**

## **Proper Behavior in Class.**

Class is an inclusive learning environment; respect one another.

You may be asked to leave class for exhibiting rude, immature, or disruptive behavior during a specific class session, and not following direct instructions to change the behavior.

ENJOY!