

**CHEMISTRY 100: INTRODUCTORY CHEMISTRY WITH LABORATORY****Class Information:**

**Instructor:** Ms. Barbara Kramer

**e-mail:** bkram01@emory.edu, bkram01@learnlink.emory.edu

**Phone:** MWF: 404-727-9259      TT: 770-784-8396 (4-8396 on campus)

**Office Hours:** TT 12:00 - 2:00 pm, or by appointment; Pierce 203

**Class Website:** <http://userwww.service.emory.edu/~bkram01/100info.htm>

**Class schedule:** TT 9:30-10:45 am; Pierce 223

**Lab schedule:** Tuesday **or** Thursday 2:00 - 5:00 pm; Pierce 203; Pre-lab Pierce 201

**Required texts:**

*Introduction to General, Organic and Biochemistry, 5th edition* by Bettelheim and March.

*Chemistry 100 Lab Manual* by Brenda Bacon Harmon.

**Supplemental texts:**

*Study Guide and Student Solutions Manual*

**Homework:**

Graded assignments will be given periodically to be completed and returned. These assignments may involve group work, but each student will be graded on the quality of his/her own work. Assignments will only be handed out during class as most will involve in-class work as well as outside work. If you are not present during class, you will be unable to complete the assignment.

Problems from the book will be assigned for self-study. In addition, sets of problems will be handed out periodically and posted on the Web. Answers to even problems can be found in the study guide and student solutions manuals. Effort should be made to work through all problems without first consulting the answers. Answers to additional problems will be posted on-line.

**Quiz and Exam Information:**

1. There will be a 15-20 minute quiz every third class during non-exam weeks (see schedule). Quiz problems will be similar to homework problems. Makeup quizzes will not be given. If a quiz is missed for an unexcused reason, a grade of zero will be entered for that quiz. The lowest quiz score will be dropped.

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2. There will be four 1 hour exams and a comprehensive final examination. Please note at the beginning of the semester the dates on which exams will be given as there will be no make-up exams. If you must miss an exam, you must tell the instructor before the exam. The instructor will decide whether or not the reason is acceptable, in which case an excused absence will be given. If the excuse is not acceptable, a score of zero will be entered for that exam. The lowest exam score of the four 1 hour exams will be dropped

### Grading

Average of quiz and assignment grades (lowest dropped)	100 pts
3 exam grades (total, lowest dropped)	<u>300 pts</u>
	400 pts
Exams and quizzes =	60 %
Final exam =	20 %
Laboratory grade =	<u>20 %</u>
	100 %

### Laboratory

A passing grade must be received in the laboratory portion of the class in order to pass the class.

### Notes

1. You must attend class in order to do well. Attendance will be taken at each meeting. After 3 unexcused absences, 1 point will be deducted from your final grade for each class missed.
2. Be on time! Being late for class is distracting to both you and your fellow classmates. If you are over 15 minutes late to class, you will be counted absent. More than three tardies (less than 15 minutes late) will be counted as an absence. If you are late, it is your responsibility to see the instructor after class to insure that you are marked tardy and not absent.
3. Your participation in class is important. Be attentive and ask and answer questions. If you sleep through class or leave early, you will be counted absent.
4. We have quite a lot of material to get through this semester. Read material before it is covered in class in order to make sure you are familiar with what will be discussed in class. Try to work through problems in the book as you read the chapters. A part of each class session will be dedicated to answering questions about problems. Please come to class with questions ready.
5. The honor code of Oxford College applies to all work submitted in this course.
6. Always ask for help when needed! Use the class Learnlink conference to post questions to both the instructor and the other students in the class. Feel free to e-mail the instructor with questions as well as to set up a meeting.

## CLASS SCHEDULE

**Note: Schedule is subject to change**

Date	Topic	Chapter	Notes
Thurs, Aug 31	What is Chemistry? Scientific Method	1	
Tues, Sept 5	Measurements, Scientific Notation, Significant Figures	1	
Sept 7	Conversions, States of Matter, Physical and Chemical Properties	1	<b>Quiz 1</b>
Tues, Sept 12	Atomic Theory, Subatomic Particles, Periodic Table	2	
Sept 14	Electronic structure of the atom, Electronic Configuration	2	
Tues, Sept 19	Periodic Table and Electron Configuration, Ionization Energy	2	
Sept 21	<b>EXAM I, Chapters 1 and 2</b>		
Tues, Sept 26	Ions, Octet Rule, Ionic Bonds, Covalent Bonds	3	
Sept 28	Lewis Structures, Shapes of Molecules, Electronegativity	3	
Tues, Oct 3	Predicting Bond Formation, Polyatomic Ions, Naming Compounds	3	<b>Quiz 2</b>
Oct 5	Mole, Formula Weight, Chemical Reactions	4	
Tues, Oct 10	Stoichiometry, % yield, Oxidation-Reduction, Heat of Reaction	4	
Oct 12	<b>EXAM II, Chapters 3 and 4</b>		
Tues, Oct 17	<b>Fall Break, no class</b>		
Oct 19	Solids, Liquids and Gases	5	
Tues, Oct 24	Gas Laws, Ideal Gas Law	5	
Oct 26	Intermolecular Forces, Properties of Liquids, Phase Changes	5	<b>Quiz 3</b>
Tues, Oct 31	Solutions, Characteristics of Solutions	6	
Nov 2	Solubility, Concentration, Solvation	6	
Tues, Nov 7	Colloids, Colligative Properties	6	
Nov 9	<b>EXAM III, Chapters 5 and 6</b>		
Tues, Nov 14	Energy Diagrams, Rates of Reaction	7	
Nov 16	Equilibrium	7	
Tues, Nov 21	Acids and Bases	8	<b>Quiz 4</b>
Nov 23	<b>Thanksgiving, no class</b>		
Tues, Nov 28	Reactions of Acids and Bases, pH, Buffers	8	
Nov 30	Titration	8	
Tues, Dec 5	<b>Exam IV, Chapters 7 and 8</b>		
Dec 7	Nuclear Chemistry	9	
Tues, Dec 12	More Nuclear Chemistry	9	<b>Last class</b>