

Chemistry 1306/1106 TR 8:00 – 9:15 am  
Chemistry for the Health Professions  
Fall 2021

Note: Although Chem 1306 and 1106 are listed as two separate courses, they are in fact linked together in content in such a way that you must take them simultaneously. You will receive the same grade for Chem 1106 as for Chem 1306. Thus, if you drop one course without dropping the other, you will automatically fail the one you did not drop. The records office will not automatically drop one course if you drop the other. If you are not already enrolled in both Chem 1306 and 1106, contact Dr. Maxwell or your academic advisor to remedy this situation.

Dr. Janet L. Maxwell

[janet.maxwell@angelo.edu](mailto:janet.maxwell@angelo.edu)  
Office Hours: MWF 8:00 – 9:00 am  
TR 9:30 – 10:30 am  
or by appointment

Required Texts:

“General, Organic and Biological Chemistry”, 4th edition by Frost and Deal  
ISBN 978-0-13-498869-6

“Lab Manual for Chem 1306/1106, 5th edition”, Maxwell  
ISBN 978-0-13-594071-6

- Also Required:
- 1) Registration/Participation in the Achieve Learning For-Credit Homework Software System
  - 2) Enrollment in Top Hat Classroom Response System  
no device needed
  - 3) A scientific calculator (Texas Instruments is the recommended brand, but other brands are acceptable)
  - 4) Web cam and required software for Respondus Lock-down Browser and monitor.

Course Description:

An Introduction to General, Organic and Biological Chemistry with emphasis on the role of chemistry in health and illness. Intended for nurses and allied health professionals.

Student Learning Outcomes:

- A. Introduction to Chemistry - Students will be able to:
  1. Classify a sample of matter as a mixture, a compound, or an element; and describe a mixture as homogenous or heterogenous.
  2. Know the names and symbols of common elements, the differences between metals, metalloids and nonmetals, and the organization of the periodic table.
  3. Convert a measurement from one unit to another using a conversion factor, report a measured value to the correct number of digits, be able to use a calculator to carry out calculations, be able to round answers to the appropriate number of significant figures, be able to express numbers in scientific notation, to enter numbers in scientific notation correctly into the calculator, to understand the values of numbers expressed using scientific notation and to understand how to find the percent of a whole or the percent that one number is of another number.
  4. Define mass and volume, and know how to express these properties using the metric system and define and solve for density and specific gravity and use density or specific gravity to solve for the mass or volume.

5. Understand and interconvert between temperature scales, understand units of energy and be able to calculate the specific heat of a substance.
6. Distinguish the bulk properties of the three states of matter, and relate these properties to the behavior of the particles that make up the substance.
7. Understand the difference between precision and accuracy.
8. Carry out dosage calculations and use percents in health care applications.
9. Determine whether a process is a physical change or a chemical reaction and write and balance a chemical equation to represent a chemical reaction.

B. Atoms and Radioactivity – Students will be able to:

1. Know the properties of the subatomic particles, and determine the mass and charge of an atom from the number of each type of subatomic particle.
2. Understand the concepts of atomic number and mass number and how these relate to the numbers of protons and neutrons in the nucleus of the atom.
3. Know how isotopes are related to one another, and understand the relationship of atomic weight to the masses of individual atoms.
4. Understand the concepts of radioactivity and radioisotopes and be able to describe and write the equations for the common types of nuclear decay.
5. Understand the units of radioactive disintegration and the concept of half-life.
6. Understand the most common medical applications for radioisotopes.

C. Compounds – Students will be able to:

1. Understand how electrons are arranged in an atom, write electron arrangements for the first 20 elements and understand the octet rule.
2. Predict ion charges for representative elements, and understand how atoms gain and lose electrons to form ions.
3. Predict the formulas of ionic compounds using the ion charges, and learn the names and charges of common transition metal ions.
4. Write the names and formulas of ionic compounds that contain two elements, learn the names and formulas of common polyatomic ions, and write the names and formulas of compounds that contain polyatomic ions.
5. Understand how covalent bonds are formed, use the octet rule to predict the number of covalent bonds an atom can form, draw Lewis structures for molecules that contain single bonds, draw Lewis structures for molecules that contain double or triple bonds, use lines to represent bonding electrons and write names for binary covalent compounds.
6. Use the mole concept to express numbers of formula units, interconvert between moles and masses, understand the significance of Avogadro's number and use it to interconvert between numbers of atoms and masses in grams.
7. Determine the shapes of molecular compounds. use electronegativities to predict whether a covalent bond is polar or nonpolar, determine the type of charge on each bonding atom and determine the polarity of molecules containing more than one covalent bond.

D. Introduction to Organic Compounds – Students will be able to:

1. Explain why carbon is uniquely suited to be the main structural element of organic chemistry, and describe the ways in which carbon atoms form covalent bonds.
2. Learn the names of the first 10 linear alkanes, and use common conventions to draw their structural formulas.
3. Classify fatty acids based on their structures.
4. Understand how and why chemists use functional groups to classify organic molecules and how alcohols and amines are categorized as primary, secondary or tertiary.
5. Distinguish linear and branched alkanes and cycloalkanes, and recognize and draw isomers of simple alkanes.
6. Name branched alkanes, cycloalkanes and haloalkanes.
7. Name and draw the *cis* and *trans* forms of cycloalkanes and alkenes, and distinguish between constitutional isomers and *cis-trans* isomers.

8. Understand the concept of chirality in organic chemistry and be able to distinguish stereoisomers from other types of isomers.
- E. Carbohydrates – Students will be able to:
1. Understand the structural features and typical physical properties of monosaccharides, including the chirality of these molecules.
  2. Understand the concept of organic oxidation and reduction reactions as applied to the concept of reducing sugars.
  3. Understand the formation of ring structures in monosaccharides and the relationship between the anomers of a monosaccharide ring.
  4. Understand, name and draw the structures of the most common glycosidic linkages in disaccharides and understand the breaking and forming of glycosidic bonds.
  5. Describe the building blocks, linkages and biological functions of the common disaccharides and polysaccharides.
  6. Understand the structure and function of the carbohydrate antigens in blood.
- F. Chemical Reactions – Students will be able to:
1. Understand the simplest concepts of thermodynamics, such as enthalpy, entropy and free energy and be able to recognize equations for calculating some thermodynamic values.
  2. Learn about energy content in foods and how to read Nutrition Labels.
  3. Understand the concepts of activation energy and reaction coordinate diagrams and how they affect the rates of chemical reactions.
  4. Understand how the rate of chemical reactions is affected by temperature, amount of reactant, and the presence of a catalyst.
  5. Understand different types of chemical reactions including synthesis, combustion, decomposition and exchange reactions.
  6. Understand the concept of chemical equilibrium and how some reactions are reversible.
  7. Understand inorganic, organic and biochemical oxidation-reduction reactions and determine which substance is being oxidized and which substance is being reduced.
  8. Understand organic condensation and hydrolysis reactions and distinguish between them.
  9. Distinguish between hydrolysable lipids and non-hydrolysable lipids.
  10. Understand and be able to prediction of the addition of hydrogen gas or water to an alkene.
- G. Intermolecular Forces – Students will be able to:
1. Describe the different types of intermolecular forces between molecules or ions, and relate the strength of these forces to physical properties.
  2. Be able to name and define the phase changes.
  3. Understand the rule of “like dissolves like” and how it applies to nonpolar compounds, polar compounds and ionic compounds, recognize hydrophilic and hydrophobic regions in a molecular compound, and rank the solubilities of structurally related compounds.
  4. Understand the role of soap in removing oil and grease.
  5. Understand the role of the strength of intermolecular forces in determining the melting and boiling points of substances.
  6. Understand and apply the relationships between pressure, volume and temperature for a gas.
  7. Understand the qualitative and quantitative aspects of Boyle’s Law and Charles’ Law and be able to predict the behavior of gases under changing conditions.
  8. Understand the effect of saturation and unsaturation of fats on their melting points and distinguish between *cis*-unsaturated and *trans*-unsaturation fats.
  9. Understand the structure and function of lipids in cell membranes.
- H. Solution Chemistry – Students will be able to:
1. Identify the solute and solvent in a solution and distinguish between solutions, colloids and suspensions.
  2. Describe and interpret the solubility of a compounds, and predict the effects of temperature and pressure on solubility.
  3. Describe what happens when ionic and molecular compounds dissolve in water and distinguish between strong electrolytes, weak electrolytes and nonelectrolytes.

4. Determine the number of equivalents per mole for dissolved ions.
5. Calculate and use milliequivalents per liter, millimoles per liter, molarity, percent concentrations, other common concentration units involving masses of solutes.
6. Calculate the final volume or concentration of a solution in a dilution, and calculate the volumes of a concentrated solution and water needed to carry out a dilution.
7. Determine the direction of osmosis and dialysis, and predict the effect of a solution on red blood cells using the overall molarity of the solution.
8. Understand and explain the different modes of transports of substances across cell membranes.

Student Learning Outcomes will be evaluated using exam questions.

### Grading:

Three One-Hour Exams (Each one hour exam will be worth 10.638 % of the overall grade)	3 x 150 = 450 pts
One Two-Hour Final Exam(comprehensive) (The Final Exam will be worth 17.730 % of the final grade)	1 x 250 = 250 pts
Achieve Learning Online Homework Grade (The Achieve Homework will be worth 7.092 % of the final grade)	100 pts
Top Hat Participation Grade (The Top Hat Participation will be worth 7.092 % of the final grade)	100 pts
Quizzes (10 quizzes will be given and the two lowest quiz grades will be dropped – the sum of the quiz grades will be worth 11.348 % of the final grade)	8 x 20 = 160 pts
Lab Grade (14 labs will be completed and the one lowest lab grade will be replaced with a perfect score* – the sum of the lab grades will be worth 24.8227 % of the final grade)	14 x 25 = 350 pts
	_____
	Total = 1410 pts

\*Only students with a valid documented excuse can have one lab grade replaced with a perfect score

Students are responsible for monitoring their own grades on Blackboard. The category in Blackboard that accurately reports the current grade is the "Weighted Average". This column does not always appear on cell phones, but it does appear on a computer.

Total averages within the following ranges at the end of the semester guarantee the student at least the indicated letter grade:

- A 90% of the total or better
- B 80-89% of the total
- C 70-79% of the total
- D 60-69% of the total
- F less than 60% of the total

## One Hour Exams:

The schedule for the one hour exams can be found on the schedule page for your section in this syllabus. The one hour online exams will open at 7:30 am on the day of the test and will close at the official end of class. Each one hour exam will consist of 30 multiple choice questions worth 5 points each. Questions will be in a random, scrambled order.

## Final Exam:

See the schedule for the date and time of your final exam. The final exam will consist of 50 questions worth 5 points each. Half the final exam will consist of problems covered in the class after Exam 3. The other half of the exam will consist of problems from the material covered before Exam 3. Questions will be in a random, scrambled order.

## Deadline:

Last Day to drop the course: November 22

Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112, University Center, in order to request and to implement academic accommodations.

## Quizzes:

The quizzes are mostly over the labs you did the previous week. You are expected to learn the material in lab before we cover it in class. You are expected to work independently on quizzes. Online quizzes using the lockdown browser and monitor will be given on Sundays as shown in the course schedule on the last page of this syllabus. Quiz topics will include the material from the previous week's lab and the sections associated with those topics from the textbook as well as additional sections as assigned in class. In order to study for the quizzes, you need to read the textbook sections listed for the quiz topic and work all the practice problems and additional problems listed in "Practice Problems and Additional Problems" handout on Blackboard. Quizzes will be worth 15 points. The quizzes will be available from 10 am until 11:59 pm on Sunday on quiz weekends. The time limit for each quiz is either 15 or 20 minutes, depending on Dr. Maxwell's discretion. You must answer the questions in order, and you cannot backtrack. Eleven quizzes will be given and the one lowest quiz grade will be dropped. If you miss the deadline for taking a quiz, make-up quizzes or late quizzes will not be given for any reason.

## Practice Problems:

On blackboard there is a document labeled "Practice Problems and Additional Problems by Section", which can be found under course materials. At the end of each section, there is a list of practice problems and a list of additional problems. The answers to the odd-numbered practice problems and additional problems are given at the end of each chapter. You will be responsible for knowing what problems are assigned for each section to study for quizzes and exams. This information is given in the document labeled. "Practice Problems and Additional Problems by Section" found under course materials on blackboard.

## Calculators:

Students are expected to have a scientific calculator available during class every day, including days with quizzes or exams. The calculator may be a graphing calculator, or just a regular scientific calculator. Students may NOT use cell phones in place of calculators during quizzes or exams.

### Attendance Policy:

Roll will be automatically recorded by collaborate. The collaborate attendance grade is worth 100 points total out of 1570 points. Missing class will lower your attendance grade significantly, so you must attend class if you expect to pass this course.

### Blackboard:

Blackboard is a computer learning environment to help you with your studies. To log onto blackboard, type in <http://blackboard.angelo.edu> into your web browser. Then click the grey "Login" button to the left of the screen. Next type in your username and password. Your username and password are assigned by IT. Please see Dr. Maxwell if you have trouble logging onto Blackboard.

### Classroom Performance System (Top Hat):

All students are required to enroll in the Top Hat classroom performance system at the beginning of the semester. You can use the app on your cell phone, tablet or computer or you can text your answers to the Top Hat phone number. We will use the Top Hat application to respond to groups of multiple choice questions designed to enhance the learning experience in the course. Students will receive a participation grade based on the Top Hat questions. Students will be allotted Top Hat points based on simply answering the question, regardless of whether the responses are correct. Missing class will lower your Top Hat grade significantly, so you must attend class if you expect to pass this course. **Top Hat points will be checked against attendance.**

### Achieve Learning Homework System:

Students will be provided with a list of assigned homework problems in the textbook from Chapters 1-8. There are two assignments for most, but not all of the chapters. These problems will be found in the Achieve Learning Online Homework System. Students will be graded on the completeness of the assignments. There will be no deduction for multiple attempts at problems. Students are expected to keep working all the homework problems until they have arrived at the correct answer. **Do not hit "give up and view solution"!** Students are expected to begin working on the homework for a particular problem set as soon as we begin talking about that material in the lab (first) and lecture (second). Due dates for homework assignments are listed in the chart below. **Important: in order to get credit for your Achieve homework assignments, you must register for Achieve using the same last name as the one for you in the ASU Computer system.** See the instructions for enrolling in Achieve Learning under content on your BlackBoard course.

### Late Homework Policy:

The Achieve Learning Homework system can accept late homework assignments. However, for each day that the homework is late, 25% of the score will be deducted. After 4 days, no credit will be given for late assignments. The system computes the score if any deductions need to be made for late homework. Note that Achieve Homework 8-2, the last assignment will not accept late assignments at all.

### Policy on Academic Dishonesty:

Students are expected to work independently on quizzes, exams and lab reports. See the ASU Student Handbook for definitions of cheating and plagiarism. Any student who is caught cheating or plagiarizing in this class will be subject to failure in the course and possible suspension from the University. Cheating and/or plagiarism will not be tolerated! Angelo State University expects its students to maintain complete honesty and integrity in their academic

pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.

### Make-up Exam Policy:

Students will only be allowed to take one make-up exam if there is an illness or emergency which is documented in writing. In order for a student to be eligible to take a make-up exam, the student must notify Dr. Maxwell before the exam is missed by telephone, voice mail or email. When a student returns to class after missing an exam, he or she must present a document such as a doctor's note or funeral notice in order for Dr. Maxwell to give permission for a make-up exam. All make-up exams will be given on Friday, December 3 at 2:00 pm. Students will not be given a second chance for a make-up exam. Each student may take no more than one make-up exam for any reason whatsoever.

### Lab Course:

Attendance in lab is a mandatory part of this course. We will do group activities in small groups of 3 or 4 students. The point values for these activities can be found on the lab schedule on the last page of this syllabus. *Note that almost all of the new material will be presented during the lab period and not in the lecture. Poor attendance in lab will be fatal to your grade!*

### Lab Reports:

Labs and Experiments will be carried out as group activities in lab. Each lab will be worth 30 points. Students are required to check their lab answers with the Instructor or Lab Assistant before leaving the lab that day. *The lowest lab report will be dropped, but if you miss lab with a documented excuse, you must carry out the work in the lab at home since quizzes will be given over the lab material near the beginning of the following week. Note that you are directly responsible for learning all the material from the lab each week.* No make-up labs will be accepted for any reason since your lowest lab grade will automatically be dropped. Only students with documented excuses are allowed to drop one lab.

### Missing Lab Policy:

Students will only be allowed to miss a lab if there is an illness, emergency or other schedule problem which is documented in writing. In order for a student to be eligible for a make-up lab, the student must notify Dr. Maxwell or the lab instructor before the lab is missed by telephone, voice mail or email. When a student returns to class after missing a lab, he or she must present a document such as a doctor's note or funeral notice or coach's note in order for the instructor to give permission to miss the lab. If you have a documented excuse, your missing lab grade will be dropped. Note: Students can only be excused from one lab grade per semester.

### Course Format:

*It is important for you to know that the order of activities is different than in a normal class. The normal course first involves the reading of material before the lecture (which students normally don't do). That is followed by the lecture, then the lab, then the homework and finally the quiz or exam.*

*It is true that we will not have exams until we have covered all the material in the chapters that are assigned for the exam. For the first week we will cover Lab 1 in lecture class. In lab, we will complete Lab 2. Starting the first week, here is the pattern we will use to cover the material.*

- 1) We do the lab over the new material first. You are expected to learn the material presented in lab each week in small groups of students. This is called *Inquiry Based Learning*. The idea is that you go into the lab knowing nothing, and by a combination of reading aloud*

explanations and solving problems with your group-mates, you are expected to be responsible at the end of that lab for all material that will be on the homework. Time and again, this method has proven to be most effective for learning at the college level, even if it involves a greater time and investment on the part of the student. There will be an instructor online with you at all times in lab to help you and answer your questions.

- 2) By Saturday after every student has completed the lab, there will be a homework assignment on Achieve Learning that will be due at 11:59 pm Saturday night. Notice that that homework assignment will be available the entire week before the deadline. *It is highly recommended that you start working on the assignment the evening you finish lab. That way the material is fresh in your mind and doing the homework that day will give you the best chance of retaining and understanding the material.*
- 3) On Sunday (*before the class lecture on the material*), between 10 am and 11:59 pm, you will be given a quiz that you can take anytime during that period. The quizzes will be online, multiple choice and you must use the Respondus Lockdown Browser and Monitor. Most quizzes will have a time limit of 15-20 minutes and when your time expires, you will be locked out. So make certain that you finish before your time expires. Each student will be given 5 questions over the exact same concepts, but each student will have different numbers or other variables. Thus it won't be of value to ask another student to give you their answers.
- 4) After the quiz on Sunday, we will spend the next week in lecture class reviewing the material from the week before to clear up any confusions or information that has accidentally been placed in the wrong learning construct. We will use Top Hat at this time to help us do that, but there will be no penalties on Top Hat for incorrect answers. Penalties on Top Hat will only be given if you don't answer the question and you are present in collaborate at that time.

After we have fully completed 2 chapters, there will be an exam over all the concepts that have undergone the entire process. These exams will be given during class days using the Respondus Lockdown Browser and Monitor. We will have 3 regular exams, over 2 chapters each. The final exam (during Final Exam Week) will be comprehensive for the entire semester, and will include coverage of the last 2 chapters we will cover in the course.



Meets Tues/Thurs at 8:00-9:15 am in your Blackboard Collaborate Platform. We will cover Chapters 1-8 in your textbook.

Week	Dates: Class Meetings the week of:	Sections Covered	Topics	Lab
1	8/23 (Your Meetings are on TR)	Sections 1.1 -1.3	Pure substances, mixtures, periodic table, metals, nonmetals, metalloids, Metric units and prefixes, metric to metric conversions	<i>Lab 2: Properties, Units and Conversions (25 pts)</i>
Saturday-Sunday, Aug 28-29	Achieve HW 1-1 due Saturday at 11:55 pm (6 pts)	Complete HW1-1 after reading through Lab 1 and finishing Lab 2 Start Working on the HW the day you have lab 2.	Quiz 1 available from 10 am – 11:59 pm Sunday (will cover Labs 1 and 2). Don't forget will do Lab 1 together in lecture class the first week.	
2	8/30 (Your Meetings are on TR)	Sections 1.4 - 1.5	Significant figures, scientific notation, percents, matter, density, temperature, energy, specific heat, physical states,	<i>Lab 3: Multistep Conversions, Dosage Calculations and Specific Heat (25 pts)</i>
Saturday-Sunday, Sept 4-5	Achieve HW 1-2 due Saturday at 11:55 pm (8 pts)	Complete HW1-2 after Lab 3 Start Working on the HW the day you have lab 3.	Quiz 2 available from 10 am – 11:59 pm Sunday	
3	9/6 (Your Meetings are on TR)	Section 1.6	Precision vs. accuracy, dosage calculations, percent calculations in health science, physical and chemical changes, chemical reactions	<i>Lab 4: Atoms, Isotopes and Radiation (25 pts)</i> Monday Lab Students Must Either Complete this Lab at Home before Saturday or Attend a Different Meeting of the Lab this Week
Saturday-Sunday, Sept 11-12	Achieve HW 2 due Saturday at 11:55 pm (7 pts)	Complete HW2 after Lab 4 Start Working on the HW the day you have lab 4.	Quiz 3 available from 10 am – 11:59 pm Sunday	
4	9/13 (Your Meetings are on TR)	Chapter 2	Atoms, subatomic particles, atomic number, mass number, isotopes, atomic mass Radioactivity, radioisotopes, nuclear equations, radioactive decay, radiations units and half-lives, medical applications for radioactivity	<i>Lab 5: Arrangement of e-, Ionic Compounds &amp; Introduction to Moles &amp; Covalent Compounds (25 pts)</i>
Saturday-Sunday, Sept 18-19	Nb Homework		No Quiz	
5	9/20 (Your Meetings are on TR)	Sections 3.1 – 3.3 & parts of 3.5 Sept 20 - Exam I (Chs 1 & 2) Administered during Class Time Achieve HW3-1 due Wednesday at 11:55 pm (10 pts) Start Working on the HW the day you have lab 5.	Electron arrangements, the octet rule, ion formation, ionic compounds, naming ionic compounds and writing the formula of ionic compounds with representative element ions, transition element ions and polyatomic ions, the mole, Avogadro's number, atoms to moles conversions, molar masses of compounds Complete HW3-1 after Lab 5	<i>Lab 6: Covalent Compounds and Moles (25 pts)</i>
Saturday-Sunday, Sept 25-26	Achieve HW 3-2 due Saturday at 11:55 pm (8 pts)	Complete HW3-2 after Lab 6 Start Working on the HW the day you have lab 6.	Quiz 4 available from 10 am – 11:59 pm Sunday	

Week	Dates: Class Meetings the week of:	Sections Covered	Topics	Lab
6	9/27 (Your Meetings are on TR)	Sections 3.4 – 3.7	Covalent bonds, electron dot structures, Lewis structures, grams to moles conversions, grams to atoms or molecules conversions, molar masses of compounds, grams to molecules conversions, Molecular geometry, electronegativity, polarity of bonds and molecules	<i>Lab 7: Introduction to Organic Compounds and Families of Organic Compounds (25 pts)</i>
Saturday-Sunday, Oct 2-3	Achieve HW 4-1 due Saturday at 11:55 pm (8 pts)	Complete HW4-1 after Lab 7 Start Working on the HW the day you have lab 7.	Quiz 5 available from 10 am – 11:59 pm Sunday	
7	10/4 (Your Meetings are on TR)	Sections 4.1 - 4.3	alkanes, skeletal structures, functional groups, families of organic compounds, fatty acids	<i>Lab 8: Naming Branched Alkanes and Isomers (25 pts)</i>
Saturday-Sunday, Oct 9-10	Achieve HW 4-2 due Saturday at 11:55 pm (6 pts)	Complete HW4-2 after Lab 8 Start Working on the HW the day you have lab 8.	Quiz 6 available from 10 am – 11:59 pm Sunday	
8	10/11 (Your Meetings are on TR)	Sections 4.4 - 4.5	Nomenclature of alkanes, types of isomers in organic chemistry, unsaturated fatty acids, chiral molecules in biochemistry	<i>Lab 9: Basic Principles of Chemical Reactions (25 pts)</i>
Saturday-Sunday, Oct 16-17	No Homework		No Quiz	
9	10/18 (Your Meetings are on TR)	Chapter 5 Oct 12 - Exam 2 (Chs 3 & 4) Administered during Class Time Achieve HW5 due Wednesday at 11:55 pm (8 pts) Start Working on the HW the day you have lab 9.	Thermodynamics, Chemical Kinetics, Overview of Chemical Reactions, Oxidation and Reduction, Condensation, Hydrolysis and Addition Reactions Complete HW5 after Lab 9	<i>Lab 10: Intro to Carbohydrates: Monosaccharides (25 pts)</i>
Saturday-Sunday, Oct 23-24	Achieve HW 6-1 due Saturday at 11:55 pm (9 pts)	Complete HW6-1 after Lab 10 Start Working on the HW the day you have lab 10.	Quiz 7 available from 10 am – 11:59 pm Sunday	
10	10/25 (Your Meetings are on TR)	Sections 6.1 - 6.4	Classes of carbohydrates, aldoses vs. ketoses, structures of common monosaccharides, stereochemistry of monosaccharides, cyclic forms of monosaccharides, oxidation and reduction of monosaccharides	<i>Lab 11: Glycosidic Linkage, Disaccharides and Polysaccharides (25 pts)</i>
Saturday-Sunday, Oct 30-31	Achieve HW 6-2 due Saturday at 11:55 pm (7 pts)	Complete HW6-2 after Lab 11 Start Working on the HW the day you have lab 11.	Quiz 8 available from 10 am – 11:59 pm Sunday <i>Happy Halloween!</i>	
11	11/1 (Your Meetings are on TR)	Sections 6.5 – 6.7	Hydrolysis of disaccharides, naming glycosidic linkages, labeling anomeric, acetal and hemiacetal carbon atoms, structures of common disaccharides, reducing disaccharides, structures of storage and structural polysaccharides, ABO blood types	<i>Lab 12: The Gas Laws</i>

Week	Dates: Class Meetings the week of:	Sections Covered	Topics	Lab
Saturday- Sunday, Nov 6-7	No Homework		No Quiz	
12	11/8 (Your Meetings are on TR)	Section 7.1 Nov 8 Exam 3 (Chs 5 & 6) Administered during Class Time Achieve HW7-1 due Wednesday at 11:55 pm (6 pts) Start Working on the HW the day you have lab 12.	Polarity of organic molecules, types of attractive forces, pressure, Boyle's Law, Charles' Law Complete HW7-1 after Lab 12	Lab 13: and Polarity of Organic Molecules, Physical States, Solubility, Dietary Lipids & Cell Membranes (25 pts)
Saturday- Sunday, Nov 13-14	Achieve HW7- 2 due Saturday at 11:55 pm (5 pts)	Complete HW7-2 after Lab 13 Start Working on the HW the day you have lab 13.	Quiz 9 available from 10 am – 11:59 pm Sunday	
13	11/15 (Your Meetings are on TR)	Sections 7.2– 7.6	Gay-Lussac's law, combined gas law, phase changes, liquids, solids, solubility, amphipathic compounds, soap, dietary lipids, trans fats, phospholipids, cellular membranes	Lab 14: Solutions, Solubility, Concentration (25 pts)
Saturday- Sunday, Nov 20-21	Achieve HW8- 1 due Saturday at 11:55 pm (9 pts)	Complete HW8-1 after Lab 14 Start Working on the HW the day you have lab 14.	Quiz 10 available from 10 am – 11:59 pm Sunday	
14	11/23 Tuesday Only	Sections 8.1-8.4	Solutions, Solutes, Solvents, Colloids, Suspensions, Saturated and Unsaturated Solutions, Factors affecting Solubility, Chemical Equations for Solution Formation, Types of Electrolytes and Concentration	No Lab This Week  Happy Thanksgiving!
Saturday- Sunday, Nov 27-28	Achieve HW8- 2 due Saturday at 11:55 pm (8 pts)	Complete HW8-2 after Lab 15 Start Working on the HW the day you have lab 15.	Quiz 11 available from 10 am – 11:59 pm Sunday	
15	11/29 (Your Meetings are on TR)	Sections 8.5-8.7	Dilution, diffusion, osmosis, dialysis, passive diffusion, facilitated transport, active transport	Lab 15: Dilution, Osmosis and Membrane Transport Mandatory Attendance for All Students! - Only students who have a documented excuse can miss a Lab!
Saturday- Sunday, Dec 4-5	Achieve HW8- 2 due Saturday at 11:55 pm (3 pts) – no late assignments accepted	Complete HW8-2 after Lab 15 Start Working on the HW the day you have lab 15.	No Quiz	
Final	Tuesday, Dec 7		Comprehensive Final Exam, including Chapters 7-8	Final Exam Administered 8:00 am – 10:00 am

The final exam for Section 010 will be held on Tuesday, Dec 7 at 8:00 – 10:00 am (available at 7:30 am)

**HAPPY HOLIDAYS!**