

Course Description:

Pre-AP Chemistry introduces students to a physical science that relies heavily upon mathematical analysis. The course explores the nature and properties of matter and the interactions between matter and energy. Topics discussed include chemical changes, balancing chemical equations, stoichiometry, chemical bonding and states of matter. Laboratory investigations are designed to supplement the lecture and develop technical skills. This course is designed to provide a comprehensive chemical foundation in preparation for an introductory college chemistry course.

Objectives:

1. Strengthen students' quantitative reasoning and problem-solving skills.
2. Hold students responsible for their own learning.
3. Develop an understanding of chemistry as a science and in daily life.
4. Understand and use the Scientific Method in class and as a problem solving tool.
5. Have students develop lab techniques.
6. Develop an understanding of the periodic table and periodic trends, chemical reactions, moles and stoichiometry, gases, gas laws, acid-base, pH and redox.
7. Encourage a knowledge-based, positive attitude toward science/technology's influence on society.

Major Themes:

First Semester*

Second Semester*

Unit 1: Scientific Measurement	Unit 9: Phases of Matter & Solutions
Unit 2: Characterization of Matter	Unit 10: Acids and Bases
Unit 3: Atomic Theory & Structure	Unit 11: Equilibria
Unit 4: Chemical Bonding	Unit 12: Reaction Kinetics
Unit 5: Chemical Reactions	Unit 13: Thermodynamics
Unit 6: Chemical Quantities	Unit 14: Electrochemistry
Unit 7: Stoichiometry	Unit 15: Nuclear Chemistry
Unit 8: Gases	Unit 16: Organic Chemistry

*subject to change

Materials:

Please have the following supplies by Friday September 6, 2013.

- Scientific calculator or graphing calculator
- Mead composition notebook
- Spiral or loose leaf paper (any rule is fine)
- 2-or 3-inch binder (must hold 3-hole punched materials)
- Dividers
- Pencils with eraser

Text and Resource Materials:

- *Modern Chemistry*, Holt, Rinehart and Winston © 2006
- Flinn Scientific
- Other texts as needed

Classroom Expectations:

1. Involvement

In order to learn chemistry, one must do chemistry. Many activities have been designed to help you learn chemistry, both in class and at home. You will be asked (and expected) to become involved in these activities.

2. Respect

You will be asked to respect your classmates, your teacher, and the classroom environment. You are expected to act with honesty and integrity at all times.

3. Responsibility

Each student is ultimately in control of his/her own learning. You will be asked to accept the responsibility through such activities as keeping a good notebook, being prepared for class, asking questions, and actively pursuing help when it is needed.

4. Cooperation

Learning is sometimes easier and richer if it does not occur in isolation. Sharing perspectives while learning a concept can only broaden one's knowledge and understanding of that concept. You will be asked to cooperate with your classmates in the process of learning.

5. Working Bell to Bell:

Research indicates that students are often engaged in instruction only 40-60% of the allotted time. Because research also indicates that learning is strongly correlated to engaged time, **IN MY CLASS ENGAGED TIME WILL EXCEED 95%!** Students **WILL** be prepared for instruction and work the entire period. **If you are off task any time during the period, one point will be deducted for each occurrence.** When I have completed the lesson and checked all areas are in order, I **WILL DISMISS** the class. Do not gather things together and leave until I am finished with the lesson. **I dismiss you, NOT THE BELL!**

Consequences:

I do not anticipate many serious violations of the classroom or campus expectations. However, if the student chooses not to uphold these expectations, the following consequences will be implemented and a deduction of 5 citizenship points will occur:

1. Verbal warning
2. Teacher-student conference
3. Parent Phone Call
4. Referral to Mr. Tofani

Severe infractions are referred immediately.

Grading: 9-Week Grades: Grading will be determined from student performance on:

≈10 points HOMEWORK/CLASS PARTICIPATION – consists of problems from the text and supplementary worksheets. Assignments are checked every day. Late homework will receive no credit.

≈ 15 - 80 points LABS - will generally be one of the following types:

1. Traditional labs or Investigations, in which the procedure will be provided. Some of labs will require the completion of a written pre-lab and a formal lab report.
2. Non-traditional labs or Explorations in which a problem is presented but no procedure is provided. The student must develop a procedure and write a follow-up lab report.

Lab safety is of the utmost importance! Students not properly dressed or any disruptions in the lab will immediately result in the student returning to a supervised classroom, receiving a zero for that lab and a detention. You will not be able to leave the classroom if you forgot to dress for lab. Students must sign safety contracts before entering our first lab.

≈ 10 - 40 points QUIZZES – will be given on a daily basis. If you have an unexcused tardy or an unexcused absence, you may NOT make up the quiz. Quizzes will sometimes be unannounced.

≈ **10 - 100 points PROJECTS** - will be completed throughout the year. Some will be teacher assigned; other will be student selected. Due date will be announced in class. The due date is the beginning of class on which the due date was assigned.

≈ **100 - 130 points TESTS** - will be given at the end of a chapter(s) depending on the concepts learned in the course. Test reviews and classroom time will usually be set aside to review and ask questions to clarify the concepts learned in class. You miss the test review date, and you are here the following day for the test, you must take the test.

Cheating will not be tolerated! Plagiarism in any form (copy and paste from the internet, copying another student's work, etc.) will result in a zero on the particular assignment for **ALL PARTIES INVOLVED**. This includes lab reports; lab partners may have the same set of data, however, questions and interpretation of results must be original.

Absences:

If you are absent, the first thing you should do is **check with your classmates and the lesson plans online**. Please do not ask me during class what you have missed. If you would like me to tell you, come during homeroom or afterschool. If you are absent for a school related trip, you must see the instructor in advance during homeroom or afterschool and check Edmodo for daily updates on coursework.

Due Dates and Late Work:

1. Assignments are due at the beginning of the period. All assignments (including tests) must be completed on time. **LATE WORK WILL NOT BE ACCEPTED FOR CREDIT!** Students who are absent the day an assignment is due are expected to hand in the assignment upon their return to class. Refer to Edmodo website for updates on daily assignments, notes, handouts, etc...Also, you may contact the instructor using Edmodo.

1. An absence prior to a test or quiz will excuse the student from the test or quiz **only** if they missed new instruction (not review). If you miss the test review and return on the day of the test, you will be taking the test.
2. A student absent on the day of the test is expected to make up the test during class upon their return.
3. If you are on a fieldtrip or school related absence, you are expected to get the work you'll miss and have it done when you return. Any quizzes or tests will be completed when you return or at the discretion of the teacher.
4. The student has 24 hours (one day) to complete excused absence work. (i.e. Absent on Monday and you return on Tuesday, your assignment is due on Wednesday. Absent on Friday and return on Monday, your assignments are due on Tuesday). You must turn in an excused absence slip (in your handbook) within 3 days of absence. If not, it will be unexcused and all assignments that day will result in a zero for a grade.

Quality of Work (Standards of Excellence):

Research shows that teachers who expect students to learn and strive for excellence are more likely to achieve in school. I have high, but reasonable standards for my students' work. You need to understand and strive for excellence in everything you do. Anything worth doing is worth doing very well. Work turned in must:

- Be neat and legible (instructor's discretion)
- Be thorough (you will have to learn what this looks like)
- Include all calculation, units, and canceling of units
- Appear in logical order
- Be well written (complete sentences, correct grammar, etc.)
- Be done on clean-sided paper

Flipped Classroom:

What this means is that students will be expected to view lectures notes that I have videotaped and linked to my webpage as homework and work on assigned problems and questions in class. I will also guide students to other video lecture sites about chemistry. The purpose of flipping a classroom is to give students more time to ask questions as they are working on homework. My desire is for students to be able to ask questions while working on assignments, reducing the amount of frustration, and therefore increasing true learning. Because the chemistry classes have become paperless and are becoming “flipped” it is extremely important for students to have access to a computer outside of class time. If you do not have access to a computer or the internet at home there are several options available. First, I have homeroom in my classroom every morning from 7:35 am to 7:50 am and have five netbooks as well as access to the mobile laptop cart. Second, the school library is usually open at 8:30 and computers can be accessed there. Thirdly, we have two computer classrooms where I can issue a student a pass to use the lab during their study hall. If there is a problem with any student being able to use a computer for homework and accessing notes, it is their responsibility to contact me and let me know so that the problem can be worked out. I am excited to be beginning the “flipped” classroom. I believe it will be a rewarding experience for all.

Please return this page to Mrs. Coburn!!

I have read the course syllabus for the Pre-AP chemistry course and I am aware of Mrs. Coburn’s expectations, classroom procedures, supply requests, grading, the content of the course and how I can communicate with her when needed. This is due by Friday September 1st for a 5 point homework grade.

_____	Period: <u>5th</u>	_____
Print Student’s Name		Date

Student’s Signature		

Parent/Guardian’s Signature		Date
_____	<input type="checkbox"/> work	<input type="checkbox"/> home
Day Phone		
_____	<input type="checkbox"/> work	<input type="checkbox"/> home
Evening Phone		
_____	Email	

Any comments or concerns that I need to know?