

HONORS CHEMISTRY

Introduction

Chemistry is a comprehensive course offering to the student general background knowledge about the composition and structure of the physical world. The goal of chemistry is to instill in the student a curiosity about matter and its interaction; to initiate a lifetime of using an organized, evidence based problem solving approach; and to recognize the significance of chemistry to the understanding of all other sciences and its applications to everyday lives and real world situations. The chemistry curriculum is designed to develop the students reasoning and analytical skills. Experimental investigations are designed, analyzed, interpreted, applied, and communicated throughout the course.

UNITS OF STUDY:

Fall Semester		Spring Semester	
<i>Unit</i>	<i>Summary Statement</i>	<i>Unit</i>	<i>Summary Statement</i>
Classification of Matter	Distinguish between chemical and physical properties	Kinetic Molecular Theory	Position, motion, and energy of particles in states of matter
Atomic Theory	Models of fundamental structures	Bonding	Interaction of atoms to form complex structures
Periodicity	Periodic trends are observable and predictable patterns	Solutions	Investigate types, concentration, and solubility of homogeneous mixtures
Formula Writing	Write the chemical symbols and names of substances	Equilibrium	Describe factors that affect systems at equilibrium
Equations	Represent chemical changes in symbolic form	Acids and Bases	Differentiate between acids, bases, buffers, and salts based on their properties
The Mole	Introduction of the concept of the mole conversions and Avogadro's number	Titration	Practical application of acid/base reactions.
Stoichiometry	Calculate and measure quantitative relationships in chemical changes	Thermodynamics and Kinetics	Reactions in matter that involve changes in energy

STUDENT OBJECTIVES: REQUIREMENTS AND GRADES

1. *Classwork / Lab* - Laboratory experiences are a major focus of this course. All students are expected to participate fully in these activities whether graded or non-graded.
2. *Homework / Written Assignments* - Assignments may be reading the text, answering questions, problem solving, or completing work begun in class. Work may introduce, reinforce or review concepts treated in the classroom. Most homework assignments are due the day after assigned. Homework may be given for practice and/or grade.
3. *Tests* - Tests usually consist of a variety of multiple choice, short answer, BCR and problems.
4. *Quizzes* - Frequently throughout the semester short quizzes will be given. These quizzes may be unannounced and based on the homework from previous days.
5. Grades are calculated based on a weighted average. 50 % Tests, 25 % Quizzes and graded homework, and 25 % labs and projects.

MATERIALS:

- TEXTBOOK- *Chemistry* - Prentice Hall – ISBN: 0-13-251210-6
- Loose-leaf paper, binder or folder and writing instruments
- Calculator –This calculator should be able to perform logarithmic functions, exponents, and square roots. (Any programmable calculator must be “Mem cleared” and checked by your teacher before use on tests or quiz. “Mem cleared” removes all games and functions from your calculator.) If you don't have a calculator one can be borrowed from the teacher.

EXPECTATIONS:

A. Classroom

- Participate in class in a scholarly manner. Ask *AND* answer questions.
- Be on time to class and ready to begin when the bell rings. If you have a pass, show it to me immediately. If you don't show it to me, it is unexcused.
- Personal needs should be taken care of either *before* or *after* class.
- A science laboratory is an inappropriate location for eating and drinking. All behaviors should be appropriate to the learning environment. Safety in the classroom and laboratory is a primary concern, any students who do not follow safety rules and precautions will not be permitted to complete the activity.
- Bring materials to class daily: textbook, notebook, calculator, pencils/pens. Students are not allowed to borrow one another's calculators during a test. Do NOT bring food.
- Expect both announced and UNANNOUNCED quizzes. These will be based on previous classwork or homework.

B. Assignments

- All assignments will be collected on the *due date*. All assignments turned in after the *due date* will be penalized 10%. No assignment will be accepted after the *deadline*. Assignments not completed by the deadline will be given a 0%.
 - ♦**Homework** -The due date and deadline for daily homework assignments are the same.
 - ♦**Other Assignments** –The deadline will be the day after the due date. Work must be turned in directly to the teacher. No work will be accepted in the teacher's mailbox, desktop, or other locations.
- Make Up for Lab Work- After an excused absence, a student should make arrangements *immediately* upon his/her return to school. Only students with an *excused* absence will receive credit for the laboratory or quiz/test. No consideration will be given for labs not made up within the allotted time.
- Science, by its nature, is often a cooperative endeavor in the laboratory as such we will be working in groups to perform the laboratory activity and complete the lab report. Lab reports and other analysis are to be *done as individuals* followed by consultation with the group to produce the best quality responses. To reinforce the cooperative nature of science, all lab reports will be collected from the group. The group will select their best lab to be graded. The "best lab" must be produced by a different group member on a rotating basis. It is the responsibility of the group to make sure that each member of the group fully understands the lab and completes the lab report. There will be no tolerance for copying answers in lab reports (or any other work.) There is a difference between working as a group to produce the best quality answers and copying one member of the group's answers. The policy for academic dishonesty and cheating is outlined in the agenda book on page 30. Students should read and understand the policy and the consequences associated with these actions. Labs may also be checked by lab quizzes these will be *unannounced*.
- This is a course that requires you to build your understanding. Missed concepts will prevent students from developing the necessary background for a strong foundation. If the student is having difficulty, he/she should NOT WAIT for the test day to dawn to get help. Chemistry staff is available most mornings (approximately 6:45 a.m.) and the tutoring schedule will be posted.

GRADING

- Grades will be determined on a 100% scale.
- Students who have not met their learning goals may have the opportunity to be reassessed after reteaching of the missed concept has occurred. The reassessment may be in the same format or an alternative format. Teachers will utilize their professional judgement to determine assignments to be reassessed. **Reassessment will be available for each quiz, however a student may only reassess up to 2 quizzes per quarter.**
- Reassessment must occur before the unit test.
- Students must complete all homework, labs, etc with legitimate effort in order to be eligible for reassessment.
- Unit tests and labs will not be reassessed.