



**Honors Chemistry**  
**Ms. Karen Ye: [kye@millerschool.org](mailto:kye@millerschool.org)**

**COURSE DESCRIPTION**

This course will emphasize the development of the students' ability to think critically and express chemical concepts with clarity in a scientific manner. Students will explore chemistry concepts through lessons and demonstrations as well as qualitative and quantitative analysis. Chemistry can be fascinating and fun; however, it is a higher-level science course and therefore, requires a genuine commitment to hard work.

In this course, students will:

1. Learn about and explore the chemical concepts relevant in the health sciences and everyday life
2. Perform laboratory experiments that create an opportunity for students to experience the chemical concepts discussed during class time
3. Develop a fundamental understanding of the scientific method and its use in chemistry.

In addition to preparing students for the SOL, this course is geared to prepare students for a college level chemistry course.

**REQUIRED MATERIALS**

The following should be brought to class **EVERY DAY**:

- ✚ A **1-inch (or larger)** binder with loose-leaf paper
- ✚ **Pencil, pen, and eraser**
- ✚ **Scientific Calculator—Cell phones (or other handheld electronic devices) cannot be used as calculators!**

**COURSE WEBSITE**

The course website can be found at [chemistrye.weebly.com](http://chemistrye.weebly.com). Resources regarding content covered in class, including Powerpoints, guided notes, and homework will be posted. Please check the website regularly to access resources and announcements.

**COURSE EXPECTATIONS**

**1. Expect Respect**

- This applies to members of the class as well as class materials
- One mic

**2. Be Professional**

- Be **on time**, be **prepared**, be **ready to learn**
- **Electronics— Out of sight, out of mind! May not be used unless given prior permission from the instructor.**
- Take **personal responsibility**—see me if you missed class or need to make up a lab/assessment.

**3. Chem is try**

- Actively **engage** and **participate** in class, put effort into all assignments, **study** for assessments
- **Reach out** to me early on if you are struggling.

**4. Keep it real, keep it safe!**

- Follow the laboratory safety rules contract when doing labs
- Since this room is also a lab space, there is **no food, drink, or gum** allowed in the lab area regardless of whether or not a lab is being done that day in class
- Students found **not following the lab safety rules may be dismissed from lab and will receive a 0 for that lab assignment**

## GRADING POLICY

Final grades will be calculated using a weighted average as follows:

-  **Tests/Quests/Quizzes—50%**
-  **Laboratory Work/Projects—25%**
-  **Homework/Classwork/Independent Studies—25%**

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### **Assessments**

In order to assess and report on the student's progress and understanding, quizzes may be given prior to the completion of a unit. There will be tests or quests given at the conclusion of each unit or subunit as indicated by the course pacing guide. They will cover information from class material, notes, assignments, laboratory experiments, demonstrations, etc. In general, these tests will be a combination of multiple choice and short answer items, as well as chemical calculations (where appropriate). I do not offer test retakes, but I will provide opportunities for students to review missed questions and earn points back towards their test grades.

### **Laboratory Assignments**

Laboratory work is generally completed in groups. Not completing the pre-lab ahead of time will prohibit you from starting the lab with everyone else. At the end of the lab, you will answer post-lab questions and the lab will be collected. There will be at least one or two labs for each unit or sub-unit.

### **Independent/Case Studies**

Students will be responsible for learning some material independently or applying class concepts to completing a case study. Material will be assigned to be completed by students both inside and outside of the classroom and will require internet use.

### **Homework**

Homework is an essential part of this chemistry course as it is a means for students to practice the concepts that were taught in class. Homework assignments will be assigned each class period and may be graded for completion or correctness. In general, homework assignments are included in the note packet for each lesson/unit and students will often be given some class time to work on them.

### **Do Nows and Exit Slips**

Do Nows and/or exit slips are completed daily. These may also be graded for correctness and will be reflected on your participation or quiz grade. These works are an assessment of what you have learned in class.

**Extra Credit:** There will be various extra credit opportunities given throughout the year to allow students to gain points back to their overall grade. Extra credit serves as a source of additional points, not a replacement or alternative assignment.

### **Exams**

All students must take the midterm semester exam; it counts for 20% of your semester 1 grade, per school policy. Students will have a final project that will be counted as the final exam grade. There are no exemptions.

### **LATE WORK:**

**All work is due at the beginning of class.** Work turned in during or at the end of class is still considered late. Late work will receive an automatic 20% deduction and any late work that is not turned in by the unit test will receive no credit. Exceptions will be made for illness and extenuating circumstances, but it is your responsibility to discuss these options with me.

## **ABSENCES**

It is best not to miss a class unless absolutely necessary. If you are absent from this class for any reason, it is **your responsibility** to seek the information necessary to make up your work as soon as possible. Check the course website for postings of new assignments, due dates, etc. Missed work and tests will be made up in accordance with the regulations as prescribed in the **Student Handbook**: Students with an unplanned, excused absence will have a time period equal to the number of days absent plus one more day to submit missing assignments and to take missed assessments. Students with a planned absence, on the day they return to school, must submit all assignments that are due and must be ready to take any assessments scheduled for the missed day(s) and/or the day of return. If labs are missed due to absences, students will be expected to attend a make-up lab session either during help session or outside of school hours.

## **ONLINE GRADEBOOK**

This portal will give students and parents access to student grades and attendance via the Internet. I will update assignments/grades at the end of each week.

## **STANDARDS OF LEARNING**

- CH. 1** The student will investigate and understand that experiments in which variables are measured, analyzed, and evaluated, produce observations and verifiable data.
- CH. 2** The student will investigate and understand that the placement of elements on the periodic table is a function of their atomic structure.
- CH. 3** The student will investigate and understand how conservation of energy and matter is expressed in chemical formulas and balanced equations.
- CH. 4** The student will investigate and understand that quantities in a chemical reaction are based on molar relationships.
- CH. 5** The student will investigate and understand that the kinetic theory and forces of attraction between particles explain the phases of matter.
- CH. 6** The student will investigate and understand how basic chemical properties relate to organic chemistry and biochemistry

### **Topics Covered**

- Scientific Method
- Measurements and Calculations
- Matter and Change
- Elements/Atoms/Ions
- Modern Atomic Theory
- Electrons in Atoms
- Periodic Law
- Chemical Bonding
- Nomenclature
- Chemical Equations
- Chemical Quantities
- Stoichiometry
- Gases
- Solids and Liquids
- Solutions Chemistry
- Kinetics & Equilibrium
- Organic Chemistry