



***Vision: To create an environment where our learners grow as individuals while gaining professional expertise and skills.***

***Mission: To offer inspiration through advanced instruction and authentic experiences.***

**Instructor:** Kimberly Williams

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### **Chemistry Principles**

This course is a standards-based study of fundamental chemical concepts, such as atomic theory and its relation to chemical behavior, chemical bonding, the mole and stoichiometry, molecular kinetics, energy relationships, solution dynamics, acids-bases, equilibrium, organic and biological chemistry, and nuclear interactions. Emphasis is placed on the utilization of mathematical, analytical, data acquisition, and communication skills as well as interdisciplinary approaches to discovery. Chemistry provides a minimum background for those who intend to take a beginning college-level course in chemistry.

### **Course Objectives**

AAS associates will obtain, evaluate, and communicate information about

- the use of the modern atomic theory and periodic law to explain the characteristics of atoms and elements.
- the chemical and physical properties of matter resulting from the ability of atoms to form bonds.
- how the Law of Conservation of Matter is used to determine chemical composition in compounds and chemical reactions.
- how to refine the design of a chemical system by applying engineering principles to manipulate the factors that affect a chemical reaction.
- the Kinetic Molecular Theory to model atomic and molecular motion in chemical and physical processes.
- the properties that describe solutions and the nature of acids and bases.

Required Supplies	
<ul style="list-style-type: none"><li>• Fully charged Chromebook</li><li>• Writing utensil</li></ul>	<ul style="list-style-type: none"><li>• Scientific calculator</li><li>• Composition Notebook (IN)</li></ul>

### Expectations for Academic Success

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| <ul style="list-style-type: none"> <li>● Attend class daily.</li> <li>● <b>NO</b> phones, earpods, smart watches, etc.</li> </ul> | <ul style="list-style-type: none"> <li>● Submit work on time.</li> <li>● Respect yourself and others.</li> </ul> |
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### Grade Calculation

Summative Assessments = 40%	Formative Assessments = 40%
<ul style="list-style-type: none"> <li>● Unit exams, presentations</li> </ul>	<ul style="list-style-type: none"> <li>● Practice Work: classwork, homework, quizzes, labs, Authentic Learning experience, CFAs</li> </ul>
Culminating Final Exam/Project = 20%	
<p>All courses will have a culminating exam or project that assesses associate learning of the semester's course content. This exam/project will be 20% of the overall course grade.</p>	

### Make-up Work

Absent associates are required to contact the instructor for make-up work. The associate will have the same number of days as they were absent to complete the make-up work.

### Late Work Policy

*Missing/Late work can be submitted (with a 10% deduction) prior to the end of the unit. Once a unit is over, no more work from that unit will be accepted.*

### Extra Credit

No end-of-the unit or end-of-the semester extra credit is available or offered in this class.

### Employability/Soft Skills

School Wide Activities:

- Follow school dress code
- Punctuality
- Professionalism and courtesy

**Student's signature:** \_\_\_\_\_

**Parent's/Guardian's signature:** \_\_\_\_\_