



General Chemistry
Course Syllabus 2021-2022
Mr. Flerlage (Max.Flerlage@hcps.org)

Course Description

This course explores the core topics associated with the properties and structure of matter, chemical reactions and systems, and energy. The relationships between key chemical and earth science principles are also featured, including weather and climate, Earth and human activity, and space systems. Successful completion of this course earns one required Science credit.

Goals for Student Learning

Unit 1: Atomic Structure and the Periodic Table

- Students will learn about the essential components of the atom, and the changes in our understandings of the atom throughout history, with a focus on nuclear processes.
- Students will learn about the specific properties and behaviors of the electron, and their relationship to the arrangement of the periodic table.

Unit 2: Chemical Bonding

- Students will learn about the critical role that valence electrons play in the different types bonding—ionic, covalent, and metallic bonding.
- Students will distinguish between the three types of chemical bonds: ionic, covalent, and metallic.
- Students will predict molecular geometry of compounds based upon their composition and other factors.
- Students will write names and formulas of binary covalent and ionic compounds (including polyatomic ions)

Unit 3: Chemical Reactions and Stoichiometry

- Students will learn to write and balance chemical reactions using the law of conservation of mass, as well as classify them.
- Students will perform composition stoichiometry and reaction stoichiometry calculations to determine various outcomes of chemical reactions.

Unit 4: Thermochemistry

- Students will learn that energy of a system is conserved during a chemical process.
- Students will interpret energy diagrams to determine if a given reaction is endothermic or exothermic.
- Students will learn the relationship between energy and heat as it relates to phase changes and bond energy.

Unit 5: Kinetics and Equilibrium

- Students will learn the effect of collision theory on chemical reaction rates.
- Students will learn that reactions occur as the result of breaking and forming chemical bonds.
- Students will use Le Chatelier's Principle to predict the shift, if any, in the equilibrium of a system.

Textbook and Materials

Textbook : *Modern Chemistry*.

- Paper, pencil/pen, scientific calculator and closed-toed shoes (no sandals or flip-flops) for some activities. Students are encouraged to bring their own *scientific* calculator (not a graphing calculator) to class, as it will be needed on tests. A class set of calculators is available, however.
- Class Documents – All copies of class documents, including PowerPoints and lab activities, will be provided both in person and on ItsLearning. It is each student's responsibility to bring these documents (or be familiar with missed assignments if absent) to class each day.
- Three Ring Binder – All classroom documents should be organized in a 2-3 inch three-ring binder that is used only for general chemistry.

HCPS Grading Policy

Examples of Product, Process, and Practice		
PRODUCT (50%) <i>Culminating Demonstration of Knowledge</i>	PROCESS (30%) <i>Addressing Specific Short-Term Learning Outcomes</i>	PRACTICE (20%) <i>Building Attitudes, Habits, and Skills</i>
Does it measure how well students achieved specific learning goals, standards, and/or competencies?	Does it provide feedback to students regarding growth towards the attainment of specific learning goals, standards and competencies?	Does it allow students to practice skills and/or reinforce content learning?
<ul style="list-style-type: none">• Cumulative tests• Lab experiments• Quarter projects	<ul style="list-style-type: none">• In class quizzes• Graded classwork assignments	<ul style="list-style-type: none">• Homework• Vocabulary practice• Various classwork practice for completion

** Extra credit will not be given for non-academic purposes. **

Absent Work Policy

All assignments should be submitted on time. Students will be given the number of class periods equal to the number of lawful class periods absent to turn in completed make up assignments without penalty. If a student is unlawfully absent, work will be accepted with a penalty of one letter grade off the assessed value. Work not submitted by following class then falls under the **Late Work Policy**.

Late Work Policy

All assignments should be submitted on time in order to earn full credit. Any assignment, (*product, process, or practice*) will be allowed to be turned in late for one letter grade deduction from the grade a student earns on the assignment. In order to earn credit for late assignments, students must submit assignments by the end of the day on Wednesday (except for the last week of the quarter) following the designated HAC update. Students are only able to submit assignments that have an established due date within the grading window before the designated HAC update. Assignment that are turned in for late credit will be identified by a footnote in HAC to include a statement about the deduction of a letter grade due to the lateness of the assignment.

Grading Window	Designated HAC Update	Late Work Due Date
September 8- September 24	September 24	September 29
September 27- October 13	October 13	October 20
October 14- October 29	October 29	November 5 (Friday)
November 8- November 19	November 19	November 24
November 22- December 10	December 10	December 15
December 13- January 13	January 13	January 21 (Friday)
January 24- February 11	February 11	February 16
February 14- February 25	February 25	March 2
February 28- March 11	March 11	March 16
March 14- March 25	March 25	March 31 (Thursday)
April 1- April 22	April 22	April 27
April 25- May 6	May 6	May 11
May 11- May 20	May 20	May 25

Academic Integrity

Academic integrity is taking responsibility for the quality and completion of one's own work. Academic dishonesty is taking someone else's work and claiming it as one's own. Students at Bel Air High School are responsible for knowing what is considered to be Academic Dishonesty and the subsequent consequences. More information can be found in the BAHS Student Planner.

Minimally, this will result in a zero for the perpetrator (if clearly identifiable); if a guilty party cannot be identified, any and all individuals involved will receive a zero. Further breaches of integrity after the first will result in a referral.

Cell Phone Policy

Students will place their electronic devices (including, but not limited to, cell phones, listening devices, smart watches, laptops, and iPads), either on silent or off, in a teacher designated area as they enter each classroom. Teachers will review with students the specific location for each room. The devices will remain in the teacher designated areas unless teachers explicitly tell students to use them as a part of classroom instruction.

- Devices will remain in the teacher designated area during bathroom visits.
- Devices will be retrieved from the teacher designated area at the end of the class at the direction of the teacher.
- School-appropriate cellphone use is permitted during class changes and lunch. Students are not permitted to make phone calls during school hours.
- Students will NOT be allowed to carry their electronic devices in a bookbag throughout the school day.

If the electronic device policy is violated, the student shall then be subject to disciplinary action up to, and including, confiscation of the device as well as an office referral.

Classroom Rules and Procedures

- Only one student can be outside of the classroom at a time. You may not leave the room until five minutes after the first bell or if five minutes or less remain until the ending bell rings.
 - You may, however, request to use the bathroom upon arrival to the classroom before the bell rings, so long as you leave your belongings here with me.
- Place all completed work in the designated area for grading. Work that is not placed in these areas at the appropriate times will be considered late.
- Bring all materials to class each period. I will alert you to lab experiments ahead of time.
- Please check ItsLearning for work when you are absent and HAC once weekly.
- Be courteous to others.
- Use the sign-in/sign-out sheet whenever you leave the room for any reason in addition to filling out a pass. Without a pass, you cannot be in the hallways during class time!