

Chemistry I Syllabus 2022-2023

Instructor: Mr. Garrett **Room:** 115 **Block:** 1, 2 and 5

Chemistry I investigates the fundamental makeup of matter, the interactions of matter, and the energy of such interactions.

Materials:

1. Chromebook
2. Headphones/earbuds
3. Pen/pencil
4. Three ring binder

Bring all of these items to class each day.

Grading:

Your grade in this course will be determined as follows:

- 10% - homework (or classwork)
- 20% - quizzes
- 10% - notebooks (Google Drive organization)
- 20% - labs
- 40% - tests

All assignment grades are out of 100 points.

Classroom Rules:

1. Be respectful.
2. Be prepared.
3. Be safe.
4. Do not bring food or drink into the classroom.
5. Cell phones must be turned off (or placed in silent mode) and put away during class.
6. Earbuds/headphones must be put away unless used for assignments or during breaks.

Handbook:

All rules in the student handbook will be enforced.

Homework:

Homework (or classwork) will include written worksheets and various online assignments. Most of these will be completed in class, but there may be times when you have to complete these outside of class. Almost all assignments will be submitted through Canvas, and you will receive more information regarding the proper way to submit your work online.

Quizzes:

We will have a quiz almost every week. The quizzes will be announced at least the day before.

Tests:

At the end of each unit we will have a test. There are usually at least 9-10 tests per semester. Because tests are 40% of your grade in this course, you should take them very seriously. (*Study your notes, study the homework, study the quizzes, etc.*)

Labs:

Science by nature is hands-on, so labs are very important to your complete understanding of chemistry. Labs are 20% of your grade. A separate document will be shared with you outlining safety rules and proper laboratory conduct, and you must watch a safety video, sign a safety contract and pass a safety quiz before you can participate in lab activities.

Notebooks (Google Drive):

You should keep a well-organized folder on your Google Drive dedicated to this class. Within that you should have a subfolder for each of the following: **reference materials** (*periodic tables, list of ions, safety guidelines, etc.*), **notes**, **homework**, **quizzes**, and **labs**. Make sure you share the folder and each of the items in it with me on Google Drive.

Retakes:

1. Anyone can request a retake on any assignment (test, quiz, lab, homework), regardless of the assignment or grade.
2. There is a **limit of 3 retakes per semester**.
3. There is a requirement of time* devoted to remediation before the retake:
 - F = 2 hours
 - D = 1.5 hours
 - C = 1 hour
 - B = 30 min

*Time must be logged on the retake form. This may be done outside of school (*honor system*), or in RM 115. **At least 30 minutes of the total time must be spent with me going over the material.**

4. The original grade will be replaced with a new grade, up to the highest possible score on the original assignment (i.e. 100 %).
5. **A retake form must be completed and submitted before the retake.** The alternate assignment/retake is tailored to each student.
6. Retakes must be completed **within two weeks of the original assignment**. If the original assignment was completed at or near the end of the grading period, the retake must be completed within 5 school days.

Tutoring:

Monday through Friday: 7:30 a.m. – 8:15 a.m. in Room 115

I am also here after school for about an hour or so. Please see me if you need to schedule additional study sessions.

Online Gradebook and Canvas:

All classes at LCHS utilize Skyward for recording and reporting grades. You should already have your login information, and you should check your grades often. Canvas will be used for assignments and communication.

Parents are encouraged to join Canvas through the Canvas Parent App if they would like access to instructional materials. Skyward is still our primary grade book and is considered to be the official grading system for all courses at Lenoir City High School. We encourage all families to use their Skyward Parent Access accounts for current attendance and grading information.

Chemistry I Units (*for specific dates and times for assignments please refer to Canvas*):

- **Measurements and Calculations**
 - measurement
 - significant figures
 - scientific notation
 - dimensional analysis and problem solving
 - density
- **Matter**
 - chemical/physical properties and changes
 - classification of matter
 - separation techniques
- **Atomic Structure**
 - atomic theory
 - historical models of the atom
 - isotopes
 - atomic mass
 - electromagnetic radiation
 - quantum mechanics
- **Chemical Bonding**
 - ionic bonding
 - covalent bonding
 - Lewis structures
 - molecular shapes
 - chemical nomenclature
- **Chemical Quantities**
 - the mole concept
 - mass-mole-volume-particle conversions
- **Chemical Reactions**
 - writing/balancing chemical equations
 - types of reactions
 - predicting products
- **Stoichiometry**
 - mol-mass-particle-volume conversions between reactants and products
 - limiting and excess reactants
- **Gas Properties**
 - Boyle, Charles, Avogadro, Gay Lussac and Dalton gas laws
 - ideal gas law
 - kinetic molecular theory
 - gas stoichiometry

- **Solutions**
 - **saturated, unsaturated and supersaturated solutions**
 - **molarity**
 - **solubility curves**
- **Thermochemistry**
 - **heat and temperature**
 - **endothermic and exothermic processes**
- **Nuclear Reactions**
 - **types of nuclear radiation**
 - **balancing nuclear equations**
 - **half-life**