



Contact Information

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Carmel HS Science

Office Hours: 7:30-7:50, 3:05-3:30, or by appointment

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Course Description

Chemistry is the study of matter in all of its various combinations. The course will study matter in qualitative and quantitative ways to gain an understanding of the world around us. You will have the opportunity to explore the history of chemistry, important chemical concepts, laboratory exercises, and chemistry's role in society. Chemistry I is a Core 40 and Academic Honors Diploma science course.

Classroom Expectations

A short list of important principles will be applied within the classroom. As mature high school students you should not require a long list of rules to follow. All of your behavior should reflect the classroom principles at all times. Stay positive, be responsible, and be engaged!

1. Respect
2. Responsibility
3. Integrity
4. Honesty
5. Collaboration
6. Safety

The following rules also apply¹:

1. Student Handbook
2. No cell phones or other technology out during class time. Items will be confiscated if necessary.
3. No food or drink.

Materials

I want you to be successful in Chemistry, but you'll have to make sure that you're prepared to be successful too! Make sure to bring these things to class every day:

1. **Textbook** — This is an important resource to bring to class every day.
2. **Scientific Calculator** — Chemistry is a math-based science. You **MUST** have a calculator available at all times. There are no extra calculators in the classroom if you forget your own.
3. **Notebook/Folder/Binder** — Something to organize your papers and take notes with specifically for this class.
4. **Pencil or Pen** — Blue or black.
5. **Safety Goggles** (Note: protective eyewear will be worn in the laboratory **at all times!** Safety goggles are provided for your use in the classroom. If you have your own or wish to purchase your own be sure to check with your instructor.)

¹ The teacher reserves the right to add additional rules at any time as necessary.

Grading

Grades will be assigned based on the Carmel High School grading scale:

Grade	Percentage	Grade	Percentage
A	92.0-100.0%	C-	
A-	90.0-91.9%	D	
B		D-	
B-		F	59.0%
C			

In addition, you should expect the following grade distributions²:

Grade Category	Percentage of Grade
Assignments	25%
Labs	15%
Notes	10%
Quizzes	10%
Exams	40%

Assignments

Assignments will be given in class and as homework to help you learn and practice the concepts covered during the course. These assignments are given for your benefit. Some concepts will be difficult, but by trying and practicing you will become much more adept at them for labs and exams.

Assignments may seem uncomfortable or difficult at times, but that is just part of the challenging learning process! You are encouraged to seek help from me or your classmates at any time. Collaborating on assignments and studying together is encouraged, cheating is not! (Yes, there is a difference!)

Work hard, study, complete your assignments and labs, and you will be successful in Chemistry!

Laboratory

Chemistry is a laboratory-based course and, therefore, is best learned when it can be seen and experienced. Laboratory activities will be completed in every unit of the course. Many of these labs will utilize chemical substances that could be potentially hazardous if used carelessly. Great attention will be given in the course to appropriate laboratory procedures, etiquette, and safety precautions. **Failure to comply with safety precautions and instructions will result in dismissal from that day's lab activity!** To be successful and safe in the laboratory make sure to do the following:

² Subject to change based on the total number of assignments and average student performance. Changes will only be made for the general benefit of students in the course.

1. Read and sign the Laboratory Safety Contract.
2. Complete pre-laboratory assignments BEFORE the day of lab.
3. Wear safety goggles at all times.
4. Obey all warnings and safety instructions, particularly regarding chemicals used.
5. Be aware of your surroundings (and the location of your partner).

Quizzes

Quizzes will be given periodically as a way to determine your progress on a particular topic. They are meant to tell you and me what you know well and what you need to spend more time covering. They are not meant to seriously impact your grade, and they won't as long as you stay prepared and study in advance.

Exams

An exam will be given at the conclusion of every unit. This is your opportunity to show me what you have learned. Exams will be written to assess key concepts of the unit and to challenge you to apply your knowledge of the unit's topics. As the first test approaches, more information will be provided on the format and types of questions.

Course Topics

Semester 1	Semester 2
Measurement and Significant Figures	Stoichiometry
Physical and Chemical Changes	Gas Laws
Atomic Structure	Solids and Liquids
Electron Configuration	Solutions
Nuclear Chemistry	Heat
The Periodic Table	Equilibrium and Reaction Rates
Ionic and Covalent Bonding	Acids and Bases
Molecular Shape	Oxidation-Reduction
Organic Chemistry	
Chemical Reactivity	
The Mole	