**Chemistry I Course Expectations**

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**Chemistry I Instructor: Mrs. Shorette**

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**Course Description:**

This is a one year course in laboratory science and is designed for those students who have successfully completed Algebra I and desire a challenging academic science course. Topics included are the mathematics of chemistry, safety, laboratory procedures, elements-compounds-mixtures, atomic theory and structure, structure and theory of the Periodic Table, mole concept, chemical bonding, nomenclature, chemical equations, stoichiometry, kinetic theory, gases-liquids-solids-solutions, acids-bases-salts, equilibrium, thermochemistry, electrochemistry, organic chemistry, nuclear chemistry, chemistry of the environment, and career opportunities. Additional topics may include: history of chemistry, biochemistry, qualitative chemistry, and research projects.

The course will incorporate lectures, demonstrations, laboratory exercises, and problem solving exercises. Classroom technology in the form of power point presentations; video; educational TV; the worldwide web; and interactive cyber-experiments will be used during the course. This course will fulfill one of the two science credits required for high school graduation and will meet college entrance requirements for a laboratory science.

**Textbook:** Chemistry, Connections to Our Changing World, 2002, Prentice Hall![MMj02836960000[1]]()

**Course Objectives:**

Upon completion of this course, the student will be able to reason more logically; manage time more wisely; feel more comfortable with technology; exercise better common sense; ask better questions; understand trade-offs; think outside the box; and better understand the importance of responsibility, accountability, civility, commitment, leadership, teamwork, attention to detail, and the work ethic needed to succeed in adulthood.

More specifically, students will be able to:

1. Use the scientific method of problem solving.
2. To be thoroughly familiar with safe, efficient, and effective laboratory rules and procedures.
3. ![MCj04369210000[1]]()To develop basic laboratory techniques and skills in using laboratory equipment.
4. To develop skills in using symbols, terms, equations, SI units of measurement, and mathematical calculations to express chemistry processes.
5. To understand the differences among elements, compounds, and mixtures.
6. To understand atomic structures.
7. To develop an understanding of and ability to use periodic tables.
8. To develop an understanding of chemical bonding.
9. To develop an understanding of and skills in writing and naming chemical formulas.
10. To balance the various types of chemical equations.
11. To develop an understanding of stoichiometry.
12. To recognize the qualitative and quantitative similarities and differences among gases, liquids, and solids using kinetic molecular theory.
13. To develop an understanding of the solution process.
14. To recognize the major differences between acids, bases, and salts.
15. To develop a basic understanding of thermochemistry.
16. To develop a basic background in kinetics.
17. To develop a basic understanding of electrochemistry.
18. To develop an understanding of basic organic chemistry.
19. To study basic nuclear chemistry.
20. To relate principles of chemistry to current societal items of concern, such as the energy crisis, nuclear waste, and pollution in order to study current problems, describe and propose solutions, and evaluate the consequences of those solutions.
21. To develop an awareness of the occupational opportunities related to chemistry.
22. To develop an understanding of character, ethics, and manners as appropriate for this course.

**Course Content and Topic Sequence**:

*Content Area Time for Topic (approximate)*

**The Nature of Chemistry**  **Q1**

 Mathematical Review

![MPj04065760000[1]]()Safety

Laboratory Procedures

![MCj03970480000[1]]()Elements, Compounds, & Mixtures

**The Structure of Matter Q1**

 Atomic Structure

Periodicity

Chemical Bonding

**Language of Chemistry Q2**

 Nomenclature

 Chemical Equation

 Stoichiometry

**States of Matter Q3**

Gases

Liquids and Solids

**Chemical Solutions Q3**

 Equilibrium

Solutions

Acids, Bases, Salts, and Buffers

**Physical Chemistry Q4**

 Thermodynamics

 Kinetics

 Electrochemistry

**Chemistry and Our World Q4**

Organic Chemistry

Nuclear Chemistry

Chemistry of Environment

Career Opportunities

**Laboratory Safety:**

A chemistry class and a laboratory in particular is an inherent place of danger. The students will be using gas flames, sharp instruments, glassware, heating plates, and most importantly, caustic chemicals which carry with them the hazards of pungent fumes and risks of explosive chemical reactions. Students will be thoroughly instructed in the techniques for handling such equipment and materials. It is important that the student wear appropriate safety clothing (eyewear, gloves, and apron), follow lab safety rules, adhere to experiment directions, and remain tightly focused at all times in the laboratory. **Failure to do so can result in harm to the student and those around him/her. Accordingly, penalties for failure to adhere to these rules will be immediate and severe.**

**Materials Needed For Class:**![MMj02837400000[1]]()

1. **A 1-1/2in. Heavy Duty 3-Ring Binder** – One with a view front to insert a cover is preferred. These can be purchased at any office supply store.
2. **A pencil and a good eraser** – Chemistry includes a lot of mathematical calculations. Erasers come in handy when working math problems.
3. **A scientific calculator** – this will prove useful throughout the course. A good scientific calculator can be purchased for less than twenty dollars. Texas Instruments and Casio, among others, make inexpensive models that are readily available.

**Grading:**

Grades will be determined by taking the number of points earned divided by the number of total possible points. Points can be earned by participating in the following activities: tests, quizzes, laboratory exercises, homework, and classroom participation (includes note taking). Participation grades will be judged solely by the teacher and will be determined upon the following factors: behavior, attitude, attendance, note taking, completing assignments on time, and volunteering to put problems on the board or answer questions. The opinion of the teacher on participation points in FINAL. **There are no extra credit assignments**. Your total points from the term will comprise 80% of your overall grade. The final exam will count 20%.

**Test and Quizzes are worth 40%, and participation, classwork, labs and projects are worth 60%**

1. ***Exams:*** Chapter, quarter, and semester exams will be based on assigned readings; classroom demonstrations, presentations, lectures, and discussion; and laboratory work. Exams will look very much alike in terms of format. They will typically include questions of the following types: multiple choice, fill in the blank, true/false, matching, math problems, and essay. Each type of exam question will be weighted relative to its importance and difficulty.
2. **Homework** will be given daily and will usually be due the following class period.
3. ***Late and Make-up Work***: Students will be expected to turn in all work on time, unless absent on the day an assignment is due.
	1. **Late work**-if you do not turn your work on time you will receive a deduction in points for the assignment.
	2. Students with an **approved** absence will be expected to make up missed quizzes, exams, worksheets, labs, and homework within three school days following their return to school. In cases where a student with an approved absence misses a full week of class, more appropriate arrangements will be made.
	3. **IT IS THE STUDENT’S REPSONSIBILITY TO GET THE MAKE UP WORK**
	4. Quizzes and exams may be made up each school day prior to first period and right after seventh period. *PLEASE discuss with the teacher the time and day you are able to take a make-up exam.*
4. ***Semester Exams:*** A comprehensive semester final exam **will be** administered at the end of the second and fourth quarters. This semester exam will cover all the material studied during both of the associated quarters.
5. **SCIENCE BINDER CHECKS**: To see how well you keep and organize papers, and other materials given out in class. EVERYTHING done for the class (notes, homework, worksheets, labs, etc) needs to be kept in the notebook until the end of the semester. If it is **NOT PRESENT** on the day of the binder check, you **WILL RECEIVE A ZERO.**

**Computation and Weighting of Student Grades**

Letter Grade Percent Range

A 90-100%

B 80-89%

C 65-79%

D 50-64%

F Less than 50%

**Semester grades** will be computed using the same rubric but weighting the quarter and final exam grades as follows:

**40% (first quarter) + 40% (second quarter) + 20% (final exam)**

**How and when students will be advised of their grades:**

 Academic grades will be posted by student number in the classroom and updated every week on Parentlink, <http://parentlink.ccsd.net> Students should review this posting to identify missing assignments. Never discard any assignment, quiz, or test, put them in your science binder. Mistakes do happen. *If I fail to post a grade for you, you will easily be able to produce the graded assignment to correct the error.*

**Classroom Rules: *Please Be Prompt, Prepared and Polite***

* **Please be on time**. As the bell rings, you are to enter the room and start to work QUIETLY on your “IN” assignment. **You are considered tardy if you are not in your seat when the bell sounds.**
	+ - * **THE TARDY POLICY WILL BE ENFORCED!**
* **Do your homework** - the only way to succeed is to practice! Class time is for working, not playing. Chemistry assignments come first. Should you complete your chemistry assignment, then you may work on something else. Wasting time (playing cards, etc.) will not be tolerated.
* **Bring materials to class**. You should bring your science binder daily, along with your calculator and materials to take notes. **Do NOT bring food or drink**, as part of this room is a working laboratory. (Water in a closable container is ok on days we are not doing labs.)
* If you are going to be/have been **ABSENT**, it is **YOUR** responsibility to see me about a make-up assignment. Please do this at the **end of the class period**.
	+ For homework and quizzes, you have as many days to turn the assignment as you were absent. For tests and labs, you may choose to have an extension until the following Thursday, and it is **your responsibility** to schedule a time to make it up.
* ![MCj04348370000[1]]()**Do not talk** while someone else (especially the teacher) is talking. **Please raise your hand** if you have a question and I will call on you as soon as I am at a stopping point.
* Please stay in your seat **until** the bell sounds and you are dismissed by the teacher.
* Follow all instructions, especially in the laboratory. Dress appropriately for lab.
* All school rules will be enforced. (**appropriate dress code, no cell phones, iPods**) These items will be confiscated if I see them in my classroom. You will be able to get them back at the end of the next school day)
* Please do not leave the room unless it is absolutely necessary. You MUST use your bathroom pass to leave the room for any reason. Leaving the room without permission, unless in an emergency situation, will result in a referral.
* And finally, **RESPECT**
	+ Be cooperative and show respect towards others:
		- **NO** roughhousing, bullying, harassment, rudeness, or defiance will be tolerated.
		- No writing on desks, chairs, walls, furniture, other classmates, etc.
		- No sleeping in class. By doing so, you are being disrespectful towards me, as your teacher.

**Extra Instruction:**

I am here for only one reason - to help each of you be successful. Since you don’t come to school intending to do poorly, we share a common goal***. If you do need extra help, don’t be afraid to ask.***

**Discipline:**

Failure of students to adhere to class or school rules, procedures, and policies will result in a full range of appropriate consequences at the classroom and, if necessary, school administration or legal authority levels. Classroom level consequences might include counseling, written warnings, loss of privileges, calls to parents, notes home, detention, in-school suspension from the classroom, and lowering of the citizenship grade. If appropriate, more severe consequences might include required parental conferences (RPC), loss of course credit, suspension, expulsion, or arrest. **While I want every student to succeed, I will not hesitate to use all the tools at my disposal to insure that no single student interferes with the success of his/her classmates through inappropriate or improper behavior.**

Consequences:

Disruptive behavior will be handled in a progressive manor. Severe disruptions will automatically result in a referral to the Dean’s office.

1st - Verbal warning

2nd – Teacher detention, student teacher action plan

3rd – Teacher detention, parent/guardian contact

4th - Referral to dean

**Tardies:**

**If you are not IN YOUR SEAT in the classroom when the bell rings-you are tardy!** School wide tardy policy will be enforced.

Note for Parents:

Successful students have at least two groups of adults monitoring and encouraging them to do well – teachers and parents/guardians. Most students need both. You can help me help your student be successful in the following ways:

1. Emphasize the importance of homework and of completing all assigned work on time. Check our class website and with your student frequently to see what work has been assigned.
2. Ensure your student has a quiet place/time in which to study at home each night.
3. Help your student with time management. Assist him/her in balancing his/her time appropriately between school work, chores, and relaxation time.
4. While my goal is to make your child succeed, and to be there for them when they need help, I am also here for you. Do not hesitate to contact me if you have any questions or concerns. The best way to contact me is through email, kshorette@interact.ccsd.net

![MPj03210550000[1]]()***Thank You,***

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