General Chemistry

Instructor: Mr. Brad Amundson
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Office: 223 J
Classroom: 224 J
Free Hours: 4A, 4B, and sometimes 1B; before and after school (when I am not coaching)

Course Description:
Chemistry is designed for mathematically inclined students, students who will major in a science at college, and students who are capable of handling a more challenging course. People who plan to enter a technical or scientific field such as medicine, biology, chemistry, physics, veterinary science, or engineering will find this course useful. This course consists of theory, practical application, and laboratory work. Course topics include the science of chemistry, atomic structure, chemical names and formulas, chemical properties and reactions, the Periodic Table of Elements, electrochemistry, organic chemistry, and as time permits, special topics.

Course Expectations:

1. Students will be able to explain and identify the three types of chemical bonding.
2. Students will be able to name, write, and identify chemical compounds.
3. Students will be able to write and balance chemical equations.
4. Students will be able to calculate relationships within chemical equations.
5. Students will be able to explain the behavior of gases, mixtures, and types of mixtures.
6. Students will be able to identify, compare and contrast, and explain the reactions of acids and bases.
7. Students will be able to write and balance oxidation/reduction reactions.
8. Students will be able to identify, name, and write formulas for organic compounds.
9. Students will conduct inquiry-based experiments to demonstrate their proficiency of chemistry.

Assignment Breakdown and Grading Scale

- Homework/Quizzes/activity labs – 30% Tests/problem-based labs – 70%

Assignments and Practices

- PRACTICE IS NOT GRADED but will help you learn the standards and learning objectives for the unit.
- ASSIGNMENTS ARE GRADED!!! They are meant to provide you feedback on what you know and still need to learn for the standards and learning objectives being covered in the unit.
- **Assignment Completion:** ***All assignments must be turned in on time!***
    - If an assignment is turned in on time: possibility of 100% credit earned
    - If an assignment is one day late and turned in: possibility of 50% credit earned
    - **If an assignment is two or more days late: 0% credit**

Students should keep all returned assignments and quizzes until each quarter grade is issued. This is your evidence to refute any errors that may arise in evaluating your grade.

Quizzes and Exams:

- Quizzes - are assessment check points on standards and learning objectives and are meant to provide you feedback on what you know and still need to learn for the unit.
    - **There are NO make-up quizzes, you are except from the quiz**
- Exams – Unit exams are a summative assessment to determine if you have learned the standards and learning objectives covered in the unit. Your grade is PRIMARLY based on unit exams as they show what standards and learning objectives you know!
    - ONE exam retake maybe taken per unit. To retake an exam, the student must complete practices to help them learn the material they did not know for the exam before they can retake it.
    - The retake must be completed within 7 days of the original exam.

3 Expectations:

1. Do the Right Thing
2. Treat others the way you want to be treated
3. Make it Right

Electronics:

- IPads can be used only for educational purposes and when appropriate. If asked to get off no questions asked, or detention could be a result.

Hats and Hoods:

- Hats/Hoods will NOT be worn in the lab or during quizzes and exams.

Absences

1. General absences
    a. You have one day plus the number of days you missed to complete work for full credit.
2. Extra-curricular absences
    a. All work must be completed **before you leave** for your extra-curricular activities. If not it, is incomplete until turned in and then it will be a zero.
    b. THIS INCLUDES EXAMS!!!!!
3. Exams
    a. If a student is gone for an exam it must be made up ASAP.
        - **If a student is gone the day before a test and only that day, they will make up the test the day they return to school NO EXCEPTIONS.**
    b. All make-up exams will be different from the original, usually in an essay format.

Tardies: ***You must be seated and ready to begin before the bell rings!***

- If you are tardy, you shall receive at least 15 minutes of detention that will be made up with the instructor within one school day.
- If you have 5 unexcused tardies, it will count as 1 day of a missed class and detention will be received.

Activities/Club Eligibility:

- It is YOUR responsibility to complete all the required schoolwork for this class. That means that this class is a higher priority than your club or activity.
- Per the new policy, if you are failing this class but complete a retake or submit missing/late assignments that follow the above policy, you COULD earn a passing grade.
- It is YOUR responsibility to keep track of your grades and submit all make up or late work as needed.
- ALL EXAM RETAKES, MAKE-UP EXAMS, MAK-UP OR LATE WORK completed will NOT BE GRADED UNITL THE NEXT GRADING PERIOD (Thursday grade pull)

Materials:

You will be expected to bring these materials every day:

- Textbook
- Pencil
- Scientific calculator is recommended. (You **must** have your own calculator)
- Notebook for class notes

Chapters and Topics Covered:

Semester 1:

Chapter 1: Matter, Energy, and Change
Chapter 2: Measurements and Solving Problems
Chapter 3: Atoms
Chapters 4 & 5: Arrangements of Electrons, Molecular Composition in Atoms & Periodic Law
Chapter 6: Chemical Bonding
Chapter 7: Chemical Formulas and Chemical Compounds
Chapter 8: Chemical Equations and Reactions
Chapter 9: Stoichiometry

Semester 2:

Chapters 10-11: Representative Gases, Physical Characteristics, & Gas Laws
Chapter 12: Phases of Matter
Chapter 13: Mixtures and Concentration of Solutions
Chapter 14 & 15: Acids and Bases, pH, & Titration
Chapter 16, 17, & 18: Reaction Energy, Kinetics, & Equilibrium
Chapter 19 & 20: Redox Reactions & Electrochemistry
Chapters 22 & 23: Organic & Bio Chemistry