

General Chemistry
Course Syllabus
2015 - 2016

Teacher: Mr. Brian Snyder

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Course Description: Welcome to General Chemistry! This class is an understanding of the composition and structure of matter, specifically atoms & molecules, how they interact, and what happens to these atoms and molecules once they do interact. We will apply these fundamentals to real life issues and examine their applicability in personal examples. The class will begin by studying the most essential parts of matter, atoms, and examine the differences between them. We will continue with an investigation into how they are held together to form molecules. We shall also examine how different molecules interact with each other to form reactions and conclude the year with the finer points of what happens within those reactions.

| Fall Semester | | Spring Semester | |
|---------------------------|----------------------------|-------------------------------|------------------------------------|
| Unit 1- Essentials | Unit 2 - Bonding | Unit 3 - Reactions | Unit 4 - Physical Chemistry |
| Atoms & Molecules | Molecular Geometry | Acid/Base Chemistry | Kinetics |
| Electrons | Inter/Intramolecular Bonds | Oxidation/Reduction Chemistry | Thermodynamics |
| Periodic Table | Solids, Liquids, Gases | Electrochemistry | Equilibria |
| Moles & Stoichiometry | Ideal Gases | | |

Major Dates

Semester 1

Project Panel 1 11/09/2015
Final Exam 01/20/2016

Semester 2

Project Panel 2 03/07/2016
Final Exam 05/26/2016
NYS Regents Exam 06/21/2016

Grading Policy

Assessments (70%): Assessments will be broken into four categories.

1. **Exams.** Traditional tests will be given every 2-3 weeks, focusing primarily on the most recently learned material, but will also require knowledge of the previous topics because chemistry is a subject that largely builds on itself. These will primarily be open ended questions. Each exam will have specific learning objectives that will be tested, which will be clearly stated beforehand.
2. **Lab Reports.** This will be very hands on class, with labs almost every week. As a class, we will investigate the various physical phenomena that take place and determine why they happen. Scholars will write down their explanations in a specific format laid out in a rubric that will be distributed to each scholar.
3. **Presentations.** When students are not writing lab reports, they will be asked to present their findings to the class. Being able to communicate what has taken place in an experiment is vital to the success of any

scientist and small presentations will be asked of each student. As with the lab reports, a standard rubric will be provided.

4. **Quizzes.** There will be brief 3-4 question quizzes almost every day. This will help you to understand almost immediately if you have trouble with a concept and will help me to adjust my lessons accordingly. All of these will total 20% of your grade.

Homework (15%): Homework will be primarily taken from the Surviving Chemistry workbook and will be graded on completion. It is in everyone's best interest to actually attempt the assignments because the homeworks will be a reflection of what is asked on the exams and it will cover topics exemplified on the labs. Homework will not be assigned as busywork, but only as a means of solidifying the skills learned in class.

Classwork/Participation (15%): Much of this class will involve class discussions and it is necessary that each scholar contribute to these conversations to the best of their ability. Additionally, there will be some time for worksheets and other in class activities.

Late Policy

All assignments must be handed in on time for full credit as scholars are expected to show professionalism during their time at Equality Charter High School. Assignments may be handed in late for a reduced grade, but you must speak with me to determine why it was late and what we can do to ensure that it does not continue to happen.

Materials Specific to General Chemistry

1" binder

4 Binder dividers

Looseleaf paper

Scientific calculator (graphing or non-graphing)

Safety

This class will be lab-based and as such, will involve chemicals and materials that are potentially hazardous. I expect you to be able to demonstrate the level of maturity needed to complete the labs in a safe and professional manner. It is absolutely instrumental that all students abide by the safety protocols discussed in the class (also found on the website). If you can do this (and I am confident you can), we are going to have an incredible, interesting year!