

2017 Honors Chemistry Summer Course Outline

Welcome to Chemistry!

Course Materials:

- Textbook: Chemistry by Prentice Hall
- ISBN-10: 0131152629
- Notebook + Writing Utensil

Course Description:

This course contains an in-depth study of a high school level Chemistry course, at an accelerated level meant to fulfill the credit requirement. Students study the qualities of matter, the behavior of electrons and waves, chemical bonding and reactions, include measurements, properties of matter, atomic structure, nuclear reactions, periodicity, chemical bonding, reactions and stoichiometry, and gas laws. There will be hands-on lab activities.

This course consists of a 6 week program, Monday-Friday, for four hours each day. Students will have 3-4 5-9 minute breaks each session.

Course Outline

All 25 chapters of the textbook will be covered during this 6 week course:

1. Introduction to Chemistry
2. Matter and Change
3. Scientific Measurement
4. Atomic Structure
5. Electrons in Atoms

6. The Periodic Table
7. Ionic and Metallic Bonding
8. Covalent Bonding
9. Chemical Names and Formulas
10. Chemical Quantities
11. Chemical Reactions
12. Stoichiometry
13. States of Matter
14. The Behavior of Gases
15. Water and Aqueous Systems
16. Solutions
17. Thermochemistry, Heat, and Chemical Change
18. Reaction Rates and Equilibrium
19. Acids and Bases and Salts
20. Oxidation-Reduction Reactions
21. Electrochemistry
22. Hydrocarbon Compounds
23. Functional Groups
24. The Chemistry of Life
25. Nuclear Chemistry

We will be spending 20% to 25% amount of our instructional time on various forms of practical activities. These will include formal lab write ups, and mini-labs (informal write ups).

Assessment/Calculation of Grades:

Student progress is assessed during each 10 days of period over this 6 weeks teaching.

A Student progress is reported as a grade based on the South Carolina grade reporting system:

93-100% = A 85-92%= B 77-84%= C 70-76%= D 0-69%= F

Student progress is cumulatively assessed each week in the following areas:

Major Assessment (Test and Projects): 70%

Minor Assessment (Quizzes, class work, and Homework): 30%