

COURSE NUMBER:	904
COURSE TITLE:	Chemistry
COURSE LENGTH:	Year, Two Credits
PREREQUISITE:	Passed Algebra I with a C+ or better and be taking or passed Geometry
GRADE LEVEL:	11 or 12

COURSE DESCRIPTION:

This course is designed for the student planning to pursue college of any type. This course will cover the basics of Chemistry.

COURSE RATIONALE:

Students taking Chemistry will increase their ability to use the critical thinking skills using information learned in class. Emphasis will be given on the calculations that are the center of Chemistry and increase their deductive reasoning skills. They will be asked to find, examine, and use information in a lab setting. Lab safety will be practiced and demonstrated. Using the information learned, they will see how Chemistry impacts their daily lives.

METHOD OF INSTRUCTION:

The course includes lectures, audio-visual presentations, demonstrations, laboratory exercises, computer simulations, research, and student readings in chemistry.

ASSESSMENT:

Students will be assessed in the following areas: Tests, Quizzes, Daily Work and Labs

CRITICAL OBJECTIVES:

1. accuracy and precision in lab measurements and calculations
2. relationship between chemistry and other branches of science
3. relationships between science, technology, and society
4. research and experimentation skills
5. types of matter
6. periodic table - families, periods, set-up, (use and interpretation)
7. atomic structure - protons, neutrons, electrons (early and modern theories)
8. electrons - bonding, configurations, quantum theory
9. naming compounds, molecules, hydrates
10. balancing chemical equations
11. mole concept
12. chemical bonding, ionic and molecular
13. stoichiometry
14. exothermic and endothermic reactions
15. laws of thermodynamics
16. gas laws and gas relationships