

Course Syllabus for Chemistry

Elective – Year – /11/12

Prerequisites: Algebra II (can be concurrent)

Course Description

Chemistry is a two-semester course that instructs students in the make-up of matter and the changes it undergoes. God's Word will permeate instruction as students investigate matter on the atomic level.

Course Goal

The teacher will instruct students in the objectives of this course and impart to his students a Christian outlook to chemistry.

Course Objectives

Through textbook instruction, laboratory activities, and hands-on observations, students will be able to:

- appreciate the complexity of God's creation on the atomic level
- think scientifically to solve problems using mathematical calculations and careful observations
- perform laboratory experiments using proper techniques and safety
- be an active and effective participant in group and lab work
- understand many of the chemical processes that are a part of their everyday lives

Course Outline

Below is the anticipated schedule for the year. Note that we will not necessarily take the chapters in order.

August-September – Chapters 1&5; pages 1-18,113-148 introduction to chemistry, measurements

October – Chapters 2-3; pages 20-80; matter, atomic structure,

November – Chapters 4&6; pages 84-108,152-187; nomenclature, the mole

December – Chapters 7-8; pages 192-249; chemical reactions

January – Chapter 9; pages 250-281; stoichiometry

February – Chapters 13; pages 398-435; gases

March – Chapters 10-11; pages 288-354; energy, atomic theory

April – Chapters 12&14; pages 358-394;440-462; bonding; liquids/solids

May – Chapters 15-16; pages 466-531; acids/bases; solution chemistry

Instructional Strategies

Students can expect a variety of teaching methods throughout the year. Usually a chapter will begin (in the first day or two) with lecture and taking notes. The next few days of a chapter will normally include one or more of several methods that could include the following (listed in order of most used to least used): question and answering, answer sharing on the white board, laboratory activity, cooperative learning, demonstration and observation, group presentations, competition, etc.

Grading

- Grades will be accomplished through “pop” quizzes, tests, projects/papers, labs, “homework counts” days (to be explained) and semester tests.
- A point is a point is a point. No weighting is given to tests, quizzes or labs. The amount of points assigned is the indication as to how much it is worth.
- Bonus points will be offered on most tests and offered for special projects throughout the year. **However**, to receive an A+, one must have a 99% or higher **excluding** extra points

from projects or extra papers. In other words, someone with an A could not do extra credit just to get the A+.

- Students can expect at least one quiz a week along with usually one laboratory report. A test on a chapter will occur about every 2 weeks. Two semester tests will be given and each will account for approximately 15% of your final semester grade.

The grading system is as follows (minimum percentages for each grade are listed):

A+	99%	A	95%	A-	93%
B+	91%	B	87%	B-	85%
C+	83%	C	79%	C-	77%
D+	75%	D	71%	D-	69%
				F	0%

Student Materials

- Three-ring binder with loose-leaf paper or notebook with folder
- A writing utensil (please ask a friend to lend you one before asking me, Thanks)
- Calculator – get in the habit of bringing it after the first week.
- Your textbook

Classroom Procedures

- Complete in-class (tests, quizzes) and outside-of-class (reports, papers, essays, readings, etc.) assignments to the best of your God-given ability.
- **Read the chapters and do the daily exercises (One will struggle on quizzes and tests if not doing so)**
- Students should present themselves as redeemed children of God inside and outside of the classroom.
- Participate in all classroom activities.
- Respect all classroom equipment and property, especially in lab situations. Failure to do so may result in fines.
- Make up missing assignments or tests after absences in a timely fashion (missing 1 day— one day to make up work)