

**CHEMISTRY
COURSE OF STUDY**

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Chemistry is a college-prep, laboratory-based science class designed for 11th grade high school students. Successful completion of the class earns the student 10 semester units. The pre-requisites for Chemistry are successful completion of Algebra 1 and Geometry.

BRIEF COURSE DESCRIPTION:

This course will cover concepts and theories relating to the scientific field of Chemistry. Topics will include the periodic table, atomic and molecular structure, chemical bonds, conservation of matter, gases, kinetic theory, acids and bases, solutions, reactions, organic chemistry, and nuclear processes. The students will learn through reading, homework questions, models, Internet research, and application of scientific theories through projects and laboratory experiments.

| Unit No. | Unit Name | Chapters Covered | No. of Weeks |
|--------------------------------|---|------------------|-----------------------------|
| 1st SEMESTER | | | |
| 1 | Intro. To Chemistry; Matter & Measurement | 1-3 (3) | 4 Weeks: Aug. 27 - Sept. 21 |
| 2 | Atomic Structure, Electrons & Periodic Table | 4-6 (3) | 4 Weeks: Sept. 24 – Oct. 19 |
| 3 | Ionic & Covalent Bonding | 7-8 (2) | 3 Weeks: Oct. 22 – Nov. 9 |
| 4 | Formulas, Quantities, Reactions & Stoichiometry | 9-12 (3) | 7 Weeks: Nov. 13 - Jan. 18 |
| 2nd SEMESTER | | | |
| 5 | States of Matter; Gases; & Water | 13-15 (3) | 4 Weeks: Jan. 21 - Feb. 15 |
| 6 | Solutions; Thermochemistry; Reaction Rates; Acids, Bases & Salts | 16-19 (4) | 7 Weeks: Feb. 25 - Mar. 28 |
| 7 | Hydrocarbons, Functional Groups, Organic Chem.; Nuclear Chemistry | 22-25 (4) | 7 weeks: Mar. 31 - June 6 |

TEXT AND SUPPLEMENTAL INSTRUCTIONAL MATERIALS:

- * *Chemistry*; Prentice Hall, © 2005, by Wilbraham, Staley, Matta, and Waterman.
- * Laboratory materials, including microscopes, slides, laboratory chemicals, test tubes, beakers, science kits, household supplies and other equipment.

Standards Correlation: All courses at Willits Charter School are based on the California State Standards, as approved by the CA Department of Education. Go to the following link to view the CA State High School Chemistry Standards (<http://www.cde.ca.gov/be/st/ss/scchemistry.asp>). The chemistry standards are also attached to this course syllabus.

Expectations:

*** Parent**

The parent is expected to provide daily oversight by checking for completion of homework assignments, evaluate and stay current on the student's progress, and keep in regular communication with the course teacher.

*** Student**

The student is expected to attend and be prepared for class each day, read all assigned material, participate in class activities, complete all homework by the due date, follow all classroom rules, especially lab safety rules, and ask for assistance when needed.

*** Teacher**

The teacher will provide course syllabus, instruction, laboratory exercises, assessments and tests; maintain grades and have available for check-out a current list of supplementary resources and materials, and be available to parents and students on a continuing basis.

ASSESSMENT:

* You will be graded on quality of work in terms of accuracy, completeness and neatness, as follows:

| | |
|------------------------|-----|
| * Assignments/Homework | 35% |
| * Tests | 35% |
| * Labs | 30% |

Grading Breakdown:

The grades in this class will be awarded as follows:

| A | B | C | D | F |
|-------------------|---------------------|---------------------|---------------------|-------------------|
| | 87% – 89.9% = B+ | 77% – 79.9% = C+ | 67% – 69.9% = D+ | 0% – 59.9% = F |
| 93%-100% = A | 83% – 86.9% = B | 73% – 76.9% = C | 63% – 66.9% = D | |
| 90%–92.9% = A- | 80% – 82.9% = B- | 70% – 72.9% = C- | 60% – 62.9% = D- | |