

Course: Chemistry
Level: Regents, Grade 10 students

Teacher: Ms. Davis, Room 164



Course Description

Chemistry is a voyage of insight into the fundamental concepts that underlie the study of the structure of matter and the changes matter undergoes. This is a Regents course and, for most students, will be the most difficult course and final exam you will experience in high school.

Strategies for Achieving success - Your success will primarily be determined by your ability to set goals, focus your attention on daily lessons, master the content and your problem solving skills. Natural ability in chemistry is the least factor that determines success in this course. **YOU MUST KNOW THE MATERIAL TO BE SUCCESSFUL.**



- 1 - **LEARN** - Focus in order to grasp the lesson while you are in class, take notes, ask questions.
- 2 - **STUDY** outside of class ~ 15-30 minutes/day by making rewriting notes, making flash cards, summarizing notes, making up quizzes and tests and reflecting on the material.
- 3 - **PRACTICE** - Always study for assessments by practicing Regents problems.

Objectives

Chemists study matter by observing the structure and the properties, chemical and physical, that matter exhibits as a result of that structure. The course is designed to enhance students' skills and expand their depth and breadth of knowledge of the structure and properties of matter with lectures, demonstrations and hands-on experiences. The benchmarks for this course are drawn primarily from Standard 1 - scientific inquiry and Standard 4 - scientific principles. Students should be able to explain, analyze and interpret chemical processes and use models to relate abstract principles to observable phenomena.

Science Department Mission Statement:

Students will be able to understand, interpret and apply scientific problem solving methods along with inquiry-based skills to novel situations.

Text Chemistry The Physical Setting by Holt, also available online, <http://my.hrw.com> Bring the book to class daily.

Materials Notebook, 2-pocket folder, highlighter, 4-function or scientific calculator (not graphing), Study Guide

Essential Questions

What is the fundamental relationship of matter and energy? What are the processes chemists use to make their discoveries? To what extent is chemistry a universal language? How do chemist make models of the unseen world?

Major Topics of Study - see www.nysed.gov for a complete Chemistry Core Guide (pgs 38 - 59).

First Marking Period

Safety and Element Names/Symbols
Atomic Concepts
Periodic Table
Moles and Stoichiometry

Second Marking Period

Chemical Bonding
Physical Behavior of Matter

Third Marking Period

Kinetics and Equilibrium
Organic
Redox

Fourth Marking Period

Acids, Bases and Salts
Nuclear Chemistry
Review

ONLINE RESOURCES

The school website is <http://cityhonors.org>. Tests and some homework will be given and assessed online at either <http://castlelearning.com> or the textbook site, <http://my.hrw.com>. My lessons will be podcast. The address is <http://web.mac.com/chemval/iWeb/Site/Podcast/Podcast.html>. Some helpful bookmarks are located at <http://del.icio.us/chemval>. My blog address is available to download any video projects at <http://msdavisscience.blogspot.com>.

GRADING PRACTICES AND PROCEDURES

Homework and Late Work

Homework assignments must be recorded in planners. It will be assigned nearly every night. Assignments will include studying notes from class, finishing class work, reading and summarizing chapters, answering questions from the text. Neither late textbook assignments, problem sets, outlines nor handouts will be accepted for any reason. At least one project will be assigned every marking period. Students will receive a handout detailing each project. Late projects will be penalized 10% per day.

Progress/Deficiency Reporting

Grades are available online, <http://www.nylearns.org/vdavis>. From the school's website cityhonors.org, select - about chs, faculty, Davis, Valerie. Ms. Davis' page.

Calculating Grades

Grades are based on tests, quizzes, homework, hands-on lab work and class work.

A⁺ = 98-100; A = 95-97; A⁻ = 92-94; B⁺ = 89-91; B = 86-88; B⁻ = 83-85;
C⁺ = 80-82; C = 77-79; C⁻ = 74-76 D⁺ = 71-73; D = 68-70; D⁻ = 65-67
F = 50 - 64 F⁻ = 0

Every week, Thursday or Friday, there will be a test or a quiz. If a student misses a test, **it must be made up by the next day after the test was scheduled, at 8:00 AM**. If a student has an illegal absence or misses more than one test in a marking period, a zero will be entered for that assessment.

Students are responsible for making up missed or incomplete class work following absence.

A cumulative test will be given at the end of each unit, a midterm in January and a cumulative test in June.

Review Books

Practice problems from old exams will be online at <http://regentsprep.org> and <http://castlelearning.com>. Students who still wish to have a paper book may purchase an UPCO review book for \$11.00 from me from 9/11 - 9/21. The 'red' Barron's Examination Review book can be purchased at a local bookstore to prepare for the final exam in June. The blue "Let's Review: Chemistry" Barron's book is helpful but optional.

Internationalism

Scientists are a world-wide community that historically meets and works in teams to advance knowledge and procedures. These endeavors impact academia, national and international economics, politics and the level of technological development and therefore, world culture. Primary sources will be employed to instruct and support students' understanding of the curriculum. For example, students will compare Mendeleev's periodic table to the modern table. Primary sources will enable students to broaden their understanding of the scientific community of which they are a part.

Writing in science

Students will maintain a daily notebook/journal and a 2-pocket folder for handouts. The daily notebook will include lecture notes and their answers to open-ended and/or leading questions posed to encourage critical thinking and review and summary/reflections.

Office Hours and Tutorial Help

I am available to **students** everyday except Monday from 2:30 - 3:00 PM, before homeroom, and during their lunch and study hall periods. My email address is vdavis@buffaloschools.org I meet with parents **by appointment**.