

Chemistry

Syllabus

By: Mr. Quinn

September 2024-June 2025

OFFICE: Room 211

SAP Days: Tuesday and Thursday

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CHEMISTRY:

Chemistry is the branch of science that deals with the identification of the substances of which matter is composed. This includes the investigation of properties and the ways in which compounds interact, combine, and change, as well as the methods for creating new substances.

COURSE DESCRIPTION:

This course has been designed for the instruction of a college-prep chemistry course for a full year of block scheduling (about 90 minutes). The content of this course has been specifically constructed and aligned with the philosophy of the biology-chemistry-physics sequence for teaching high school science.

The purpose of this course is to fulfill the following:

1. Stimulate student interest by demonstrating a chemical perspective exists in the real world and nurture that interest by requiring students to complete lab investigations and lab activities at school and at home via the project-based learning paradigm.
2. Initiate and preserve scientific inquiry in novel chemistry lessons for students.
3. Promote learning and technological outcomes by providing resources to students for accomplishment of class and home learning objectives.
4. Foster practical, mathematical, and chemical applications among students when given a real-world problem.
5. Promote scientific and chemical literacy through the provision of scientific journal articles, newspapers, science excerpts, and texts.

6. Through the use of oral and written communication, increase student proficiency in the use of the scientific method, debate strategy, the creation of scientific reports, and the creation of CER activities.
7. Strengthen independent and collaborative work ethic among students in active learning environments.

The course is designed to direct students towards hands-on inquiry-based activities. Cooperative group work and the use of alternate assessments are an integral component of this course. Alternate assessments take the form of research-based projects, involving writing, poster making, web quests, Project Based Learning (PBL) activities and Computer Based Labs (CBLs).

ORGANIZATION:

This is a lecture-lab course in which topics are presented by the instructor. However, the dominant characteristic of the chemistry class is student-centered learning. Although class demonstrations and explanations will take place by the instructor, students will lead the class using explanations of chemical phenomena, PowerPoint presentations, pictorial representations of atomic structure, molecular bonding, and chemical reactions, and debating both during class periods, lab periods, and outside of class. Objective quizzes are sometimes given, and there will be a midterm and a final. It is imperative for students to employ the skills and techniques taught in chemistry for the year and to fully take advantage of the course. In addition, because chemistry relies heavily on hands-on activities, initial emphasis is placed on lab safety, the use of MSDS, the use of equipment and basic lab procedures.

TEXT AND REQUIRED SUPPLIES:

1. Scientific calculators (will be provided)
2. Pen/pencil
3. Paper
4. Notebooks- At least 2" thick
5. Rulers

GRADING PLAN:

Coursework will be weighted as follows:

Level 1 Assignments 20%

Level 2 Assignments 30%

Level 3 Assignments: 50%

100%

Formative Quizzes:

Quizzes will be given only to those students who are present when the quizzes are passed out; there will be no makeups.

GENERAL:

Your recorded grades will be available for your review at any convenient time. Do remember to *keep all graded papers and quizzes returned to you* so that any discrepancies can be easily and fairly straightened out. Except in cases of actual error, final grades are permanent.

MID-TERM/FINAL EXAM: TBD

MAKE UP WORK

All students are responsible for any work they miss when they are absent. You have as many days as you are absent to make up your work. For example, if you are sick for 2 days you have 2 days starting from the day you come back to school to make up any assignment you missed.

LATE WORK

All students are expected to hand in all work on time. Students will earn up to 80% for any assignment turned in after the due date and up until the cutoff dates stated below. Students will earn up to 65% for any assignment turned in beyond the cutoff date.

CLASSROOM RULES OF CONDUCT

1. No music is allowed in class and no cellphones should be out or visible!!!
2. Food and beverages are not permitted in the classroom other than times food is needed for lab investigations. This includes plate lunches, drinks, candy, etc. whether opened or not.
3. Class lab time is expected to be spent on lab work. Lab time is not free time. Attendance and concerted work on assignments are required. Work at home will be required *in addition to* work during lab times (work at home should not *substitute for* work during lab periods).
4. No students are allowed to sleep in class!
5. A respectful environment is a must between students and teacher.
6. When someone speaks (not just the teacher), everyone listens.
7. Lab safety is very important, and you will be tested on it. If goggles/gloves/aprons are required, everyone must wear them. There will be enough protective equipment for everyone. Inform me immediately if something breaks or does not work.