NGSS Chemistry Syllabus 2023-2024

Contact Information for Jeff Yuen

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Course Overview and Description

This is an introductory course in the foundations of chemistry and the chemical processes that drive the Earth systems. The instructional segments of this course are based on CA's Next Generation Science Standards (NGSS). The laboratory work will provide students with scientific investigative techniques and engineering practices. Students will develop critical thinking skills and apply chemistry principles to solve real world problems in preparation for their college and career experience.

Students will investigate the formation of the first elements and their transformation to heavier elements in the context of stars as nuclear element factories. They will use this knowledge to explore the structure of an atom and patterns in the periodic table. Students will investigate the forces that hold matter together and how society uses its understanding of elements and molecules to develop useful materials. Students will explore the interactions of atoms and molecules as illustrated by chemical reactions. Students will investigate Earth's atmosphere and climate system. They will examine connections between matter and energy into and out of chemical systems, extending the concept to the movement of energy through Earth's systems and ways humans may control these moments. Students will investigate these concepts in the context of greenhouse gases, their effect on the atmosphere, and the stability and changes of the chemistry of the ocean and other bodies of water on Earth.

Grades

Grades are weighted based on the following categories:

- 5% - Academic Responsibility
- 30% - Formative (Homework, classwork, labs)
- 65% - Summative (Tests, quizzes, individual projects)

Overall scores based on the following:
A: 90 -100% **B**: 80-89.9% **C**: 70-79.9% **D**: 60-69.9% **F**: 0-59.9%

Cellphone/Electronics Policy

Per the LGA handbook, cellphones (including earbuds or other smart devices) are not to be used in the classroom. We will follow the handbook procedure for cellphone violations:

1. Warning
2. Teacher takes cellphone (returned at end of period)
3. Phone sent to office by campus security

Office Hours

Mondays and Wednesdays starting at 7:30 AM. Students are encouraged to attend office hours if they need assistance on topics, help catching up, or need a place to work.

Late Work and Retake Policy

- Formative assignments will not be accepted past the due date (unless there are extenuating circumstances, please contact teacher).
- Labs and in-class activities are always due the same day OR the following day (see separate document for more information about labs).
- "Do Nows" cannot be made-up. They are excused if you are absent only.
- Retakes for summative assessments are offered for students but they must attend office hours first to make test corrections. Whatever score a student receives on the retake is the new test score (even if it is lower). The topics are the same but the questions will be different for the retake. Accommodations can be made if unable to attend office hours.
- If you are absent for a test/quiz, it must be made up during office hours.

Classroom Expectations

Students are expected to treat the teacher, peers, and equipment with respect. Failure to do so will result in appropriate disciplinary action. Absolutely zero tolerance for any type of bullying, including cyber bullying.

Bathroom Policy

One student may be out of the room at a time. Must sign in and out. Please avoid using restroom during direct instruction or important group work. Abuse of the bathroom policy may result in limitations.

Materials

Please bring a charged Chromebook every day to class. A calculator is recommended in addition to a binder to stay organized and other common school supplies.

Lab Safety

Safety in the classroom is a TOP PRIORITY!! In order to use the laboratory equipment, students must pass the lab safety quiz. More detail will be provided on a separate handout. Violation of rules will result in immediate removal and a score of 0 for the activity. Students should NOT open cabinets, enter unauthorized areas, or touch equipment unless instructed

Note on "Copy Pasta" and Cheating

It may seem tempting and easy to copy/paste answers and "Google" answers but the course is designed to assess your **understanding** of the material. Assignments are designed to deepen your understanding and to practice your skills. Take responsibility for your own learning and you will be very successful!

If a student is caught cheating, both the cheater AND the person being cheated off will result in zeroes with possible disciplinary action.

**Note: Syllabus is subject to change at teacher's discretion.*

Student Acknowledgement: _____

Parent/Guardian Acknowledgement: _____