



Chemistry 2021-2022

CANYON DEL ORO HIGH SCHOOL

Jill Christman

Chemistry and its Content

Chemistry is the study of matter and the changes it undergoes. In chemistry this involves predicting chemical and physical properties of substances, describing and explaining the properties and composition of matter, observing, measuring and calculating quantities to demonstrate conservation of matter and energy in chemical changes, describing and predicting chemical reactions and physical interactions of matter using words or symbolic equations, describing and explaining physical interactions of matter and energy, using conceptual models, and calculating quantitative aspects of chemical and physical interactions. In addition to meeting these standards, you will be applying mathematics, reading and writing. Math is one of the foundations of chemistry, and a working knowledge of algebra is a must for this course.

Prerequisites

B or better in Biology, Physics and Algebra I. and concurrent enrollment in Algebra II. Students who do not meet these prerequisites should see me as soon as possible. Failure to meet the prerequisites will limit your ability to successfully complete this course.

Textbooks and Required Materials

- Scientific Calculator
- 3-ring Notebook for class handouts and notes
- 2 Composition Books – Standard size

ASSIGNMENTS AND ACTIVITIES

I am committed to presenting the information in this course in an interesting and varied way. Due to the large amount of content which will be covered, the course will again utilize screencasts to deliver instruction. In addition, students will complete a laboratory experiment approximately

once every other week. Other shorter labs, demos, and hands-on activities will be integrated into the class periods. Emphasis will be placed on critical thinking, problem solving, and inquiry in classroom assignments. Regular assignments will include chapter vocabulary, completing study questions, solving a variety of problems, completing informal lab analyses, and writing formal lab reports.

Teaching Approach

CDO Chemistry is a Flipped Classroom. A flipped classroom is a teaching model in which the typical lecture and homework elements of a course are reversed. Short screencast lectures and reading assignments are completed by students at home before the class session, while in-class time is devoted to problem solving, discussions, and labs. The value of a flipped class is in the repurposing of class time into a workshop where students can inquire about screencast content, test their skills in applying knowledge, investigating phenomena, and interacting with one another in hands-on activities. I believe in the growth of all my students. I believe that ability can change as a result of effort, perseverance, and practice. I see mistakes as a way to learn and I want my students to embrace challenges and persist if they have a setback. With this mindset, students can have reach higher levels of achievement.

Taking Notes

Screencasts will be watch in an app called Edpuzzle. I will be going over how to access the screencasts in class. The app will record if you watch the screencast. In addition there will be comprehension questions that are required which are embedded in the videos. Each screencast is less than 15 minutes. Watching the screencast is mandatory and is recorded as a

grade for the class. Missing a screencast is equivalent to missing a class. You must take comprehensive notes and record any questions you have so you can ask them the next day in class.

Labs

Students communicate and collaborate in lab groups, however each student must write a laboratory report in a lab notebook for every lab they perform. Pre Labs and Post lab quizzes will be part of the curriculum to ensure lab understanding. Your exemplary behavior and observance of safety procedures is required at all times. Laboratory safety is always of paramount importance.

Academic Integrity

Cheating will not be tolerated in this class. Disciplinary action will be carried out in accordance to the Student Handbook.

Assessment

The course will be assessed in three areas.

(i) **Topic Exams and Quizzes** Students will be taking an exam at the completion of each topic of study. We will frequently be reviewing previous topics on these exams. Students who complete ALL assigned work prior to the exam, earn the option to complete corrections on the exam to improve their grade, more on this policy in a separate document. Each Friday students will be taking a quiz over the current week's material; quizzes may be retaken in tutorial until the next quiz. The test and quizzes will make up 35% of the final semester grade. 15% will be the Final Exam.

(ii) **Laboratory;** Chemistry is a lab based science, and we will be performing labs to answer questions and you will be designing labs to investigate phenomena. In addition to completing the lab and writing a lab report students are required to keep a lab notebook. The labs will make up 25% of the final semester grade.

(iii) **Other Assignments:** (25 % of Final Semester Grade)

- **Problem Sets** - Problem sets will be turned in and graded individually into Classkick
- **Screencasts** – will be assigned daily and will be completed in the Edpuzzle application
- **Pogil** – Collaborative group work, may be both in and out of class
- **Daily Warmup** – Turned in every two weeks

Late Work

Assignments are due AT THE BEGINNING OF THE CLASS unless otherwise stated. If you are absent homework must be submitted AT THE BEGINNING OF CLASS on the NEXT DAY you are in school. Work submitted late will be assessed a 5% per day late penalty, with a maximum deduction of 50%.

Daily work that is completed ON TIME in classkick can be resubmitted for grading up until the exam for full credit.

Course Topics

- Measurement and Data Processing
- Quantitative Analysis
- Atomic Structure
- Bonding
- The Periodic Table
- Energetics
- Rates of Reaction
- Equilibrium
- Acids and Bases
- Redox
- Organic Chemistry

Grading Scale

90-100 A
80-89 B
70-79 C
60-69 D
0-59 F

Contact Me

The best way to contact me is via email at

jchristm@amphi.com

Syllabus Signature Required!!

Students: Please read the course syllabus and share it with your parents. Then you and your parents should sign this sheet. Please detach below and return by Monday August 9, 2021

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I have read the policies and expectations for Mrs. Christman's Chemistry class and understand them.

Student Printed Name:

Parent/Guardian Printed Name:

Student Signature:

Parent/Guardian Signature:

Date: _____

Date: _____

Parent/Guardian email: _____