



# 2020-2021 COURSE SYLLABUS

## Chemistry in the Earth System

### GENERAL INFORMATION:

Instructor name: Andrea Horgan

Room number: B26

Phone number: 916-433-5200 ext 506126

Tutoring Hours: Before school (7:45am -8:15 am) and during lunch (M-W-F)

Email Address: [andrea-horgan@scusd.edu](mailto:andrea-horgan@scusd.edu)

Remind code: @jfkchem

\*Remind is not a requirement, HOWEVER, information will be sent out through Remind on a regular basis. The instructor will be available to answer any questions until 8pm every night. Parents are also invited to join Remind if you wish to receive updates or you need to contact me.

### COURSE DESCRIPTION:

Chemistry in the Earth system is a (college preparatory) two-semester course designed to meet the needs of students pursuing a major in a University or College. It integrates the concepts of Chemistry and Earth science linking cross-cutting concepts to make them more relevant to the students.

The course will meet the A-G requirements for the University of California and the California State University systems. To meet the **minimum** qualifications for these colleges, a grade of C or better must be achieved. The course is strictly aligned with the Next Generation Science Standards (NGSS) that have been adopted by our state.

The laboratory portion of the course will correlate with the instructional units rounding out the course. Labs will likely account for about 25% of the class time. During online instruction the labs will have a virtual learning aspect (simulations, videos, etc.).

**TEXTBOOK:****Pearson: Experience Chemistry in the Earth System**

This is a new textbook for this year. Students will receive online access to the Saavas platform where they will be able to access the book, labs and handouts associated with the book. Students may also receive a physical copy of the textbook.

**GENERAL ORDER OF TOPICS:****Instructional Segment 1: Combustion, Heat, and Energy**

Combustion

Energy Transfer and Conservation

Earth's Interior

**Instructional Segment 2: Atoms, Elements, Molecules**

Atomic Structure

The Periodic Table

Chemical Bonding

**Instructional Segment 3: Understanding Chemical Reactions**

Physical Properties of Matter

Chemical Quantities

Chemical Reactions

Stoichiometry

Thermochemistry

**Instructional Segment 4: The Chemistry of Climate Change**

Weather and Climate

Global Climate Change

**Instructional Segment 5: The Dynamics of Chemical Reactions and Ocean Acidification**

Reaction Rates and Equilibrium

Acid-Base Equilibria

Ocean Acidification

**GRADING:**

The grading scale is as follows:

Grade Percent

A 89.5-100%

B 79.5-89.4%

C 69.5-79.4%

D 59.5-69.4%

F Below 59.4%



The grades will be divided as:

10% - Classwork/Homework

40% - Tests

30% - Labs (including lab reports and lab quizzes)

20% - Quizzes

### **MAKEUP WORK:**

Makeup work will be given if the absence is excused. Students have as many days to make up the work as they were absent. For example, if a student was absent for 3 days, he/she has 3 days to make up the work missed.

If you have missed school, please check the Google Classroom for any work that you have missed.

### **LATE WORK:**

Any late work that is turned in after the due date (that does not qualify as makeup work) will be given half credit.

### **CELL PHONE POLICY:**

**In person:** There will be occasions where cell phones will be used for data collection or to look up information online. If cell phones are being used during an inappropriate time, the student will be given one warning. After that, the cell phone will be confiscated and turned into the administration. If a cell phone is out at ANY time during a test FOR ANY REASON, the student will receive a zero on the test WITHOUT A WARNING.

**Online:** Cell phones may NOT be used for any reason during quizzes and tests. Cell phones MAY be used to supplement activities.

### **DAILY AGENDA:**

#### **Homework check:**

**Online:** Homework needs to be uploaded to Google Classroom. Please do not email your homework to me.

**In person:** Homework will be checked by me at the beginning of the class period.

**Daily lesson/lab:** Lessons and labs will be based on the unit of study and will include lecture, group work, independent study and group labs.

**CLASS RULES AND EXPECTATIONS:**

1. Do only those things which allow you and others to learn (online and in person).
2. Bring materials necessary for learning(online and in person).
  - a. Please bring textbooks to class on the days assigned. (online and in person)
  - b. Bring a pen/pencil and paper to class. (online and in person)
3. No food or drinks (in person)
  - a. Because of the nature of the course and exposure of chemicals, food and drinks will not be allowed. Students may bring a water bottle.
4. Respect teacher and classmates. (online and in person)
5. Arrive on time. (online and in person).
  - a. Any tardies will result in a lunch detention issued by the administration(in person).
6. ALL LABORATORY SAFETY RULES AND PROCEDURES MUST BE FOLLOWED.
  - a. A separate list of lab rules and procedures will be handed out to each student. (in person)