

Course Syllabus

Course Overview Course Title: NGSS Chemistry Instructor Name: Athena Andrews Grade Level(s): 9-12 Credit Type: (i.e. "science", "elective") Science # of credits per semester: 1

Prerequisites (if applicable):

General Course Description: NGSS chemistry is a year-long course that engages students in the composition, interactions, and mathematical representations of matter. A multi-dimensional teaching approach offers a grounding experience that connects material to real-world phenomena.

Prioritized National/State Standards:

HS-PS3-2 Energy

Develop and use models to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motions of particles (objects) and energy associated with the relative positions of particles (objects).

HS-PS3-4 Energy

Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).

HS-PS3-1 Energy

Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known

HS-PS1-7 Matter and its Interactions

Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.

HS-PS1-2 Matter and its Interactions

Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.

Course Details

Learning Expectations

Materials/Texts: Students will be provided a fillable note packet to use for recording notes from lecture videos and for completing homework for use as reference material on tests and quizzes.

Course Content and Schedule:

<u>Semester 1</u> <u>Semester 2</u>



Measurements and Calculations Chemical Reactions

Matter Bonding

Modern Atomic Theory Gases

Chemical Foundations Liquids and Solids

Nomenclature Solutions

Differentiation/accessibility strategies and supports (TAG, ELL, SpEd, other):Because this is chemistry for all, in an effort to provide an equitable learning experience, students will be allowed to use a percentage of their grade to access a scaffolded version of the assignment. Students with accommodations and/or modifications will receive assignments in accordance with their IEP or 504.

Safety issues and requirements (if applicable): Students and parents will be asked to fill out a safety contract upon return to campus.

Classroom norms and expectations: Synchronous (live) class meetings will take place on Zoom. When logging into zoom, make sure you log in with google and use your PPS login info. All class sections, individual appointments, and tutorials will use the same link to enter. All links can also be found on the course home page. Expected course etiquette can be found in the link and resources page of canvas

Evidence of Course Completion

Assessment of Progress and Achievement: Each student is expected to have 1 binder. Each module contains printable resources to be used from home. These include a printable periodic table, and guided note packets to fill in as you watch pre recorded lectures. Each module is arranged by daily assignments. These assignments include lectures to watch and questions to keep you engaged. You will complete progress checks at the end of each day's material. These short homework quizzes will contribute 10 % to your total grade. You get 3 attempts at each quiz. I will keep the highest score. Homework can be used on these quizzes so completing the homework portion of your packet will be of great value.

Progress Reports/Report Cards (what a grade means):

Grading:

Notebook(Homework/Notes/daily quizzes) 10 %

Current Events 10 %

Lab and Safety Procedures 5 %

Exams/Labs/Projects 75 %

*Your lab and test grades will come from separate websites and will not appear in your canvas grade synopsis. Your synergy grade will look different than your canvas grade and will be MORE accurate.

Career Related Learning Experience (CRLEs) and Essential Skills:

Students are learning to pull together information and use new skills to solve problems.

Communication with Parent/Guardian

What methods are used to communicate curriculum, successes, concerns, etc.?

Parents have access to act as an observer on canvas by setting up their own account. They can see the assignments for the week and their child's progress. In case of concerns, parents will be contacted via their chosen method as indicated in a survey from the beginning of the year. If they did not provide a contact method, parents will be contacted via synergy email. Please contact me at msansom@pps.net if you need help pairing with your child's canvas account.

Personal Statement and other needed into	