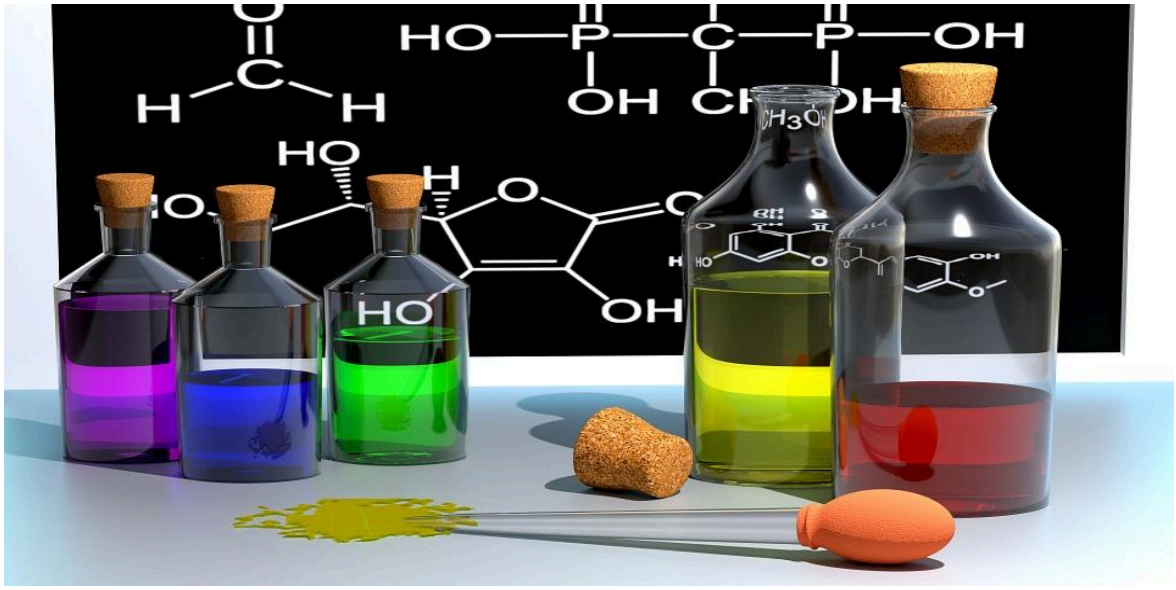

Chemistry B
Syllabus

INSTRUCTOR INFORMATION

Mrs. Kaitlin Nilson
Email: kaitlin.nilson@ileadonline.org
Office Hours: See Brightspace Announcements

CONTACT INFORMATION

Please feel free to contact me if you have any questions regarding your assignments or course content. Course facilitators respond to emails within 24 hours on weekdays and 48 hours on weekends. If you don't receive a response in that time, please reach out again just in case I did not get your message.

COURSE REQUIREMENTS

All learners must have computer and internet access. Participants in online classes must be comfortable with the basic functions of word-processing software, including GOOGLE DOCS.

In each unit, students will be expected to participate in discussions and proceed through the Weekly Agenda that may include videos, PowerPoints, virtual labs, research, data gathering and analysis, assignments, quizzes, and tests. Online simulations will be included in this exploration and may require tech support. Learners will be encouraged to show understanding in creative projects.

COURSE DESCRIPTION

Students explore the fundamental principles of chemistry which characterize the properties of matter and how it reacts. Computer-based and traditional laboratory techniques are used to obtain, organize and analyze data. Conclusions are developed using both qualitative and quantitative procedures. Topics include, but are not limited to: measurement,atomic structure, electron configuration, the periodic table, bonding, gas laws, properties of liquids and solids, solutions,stoichiometry, reactions, kinetics, equilibrium, acids and bases, and nuclear chemistry.

COURSE GOALS

The main goal of this program is to provide a solid foundation in the study of matter and its changes. Through many activities students will demonstrate how theory is applicable in laboratory situations. All students will develop good methods of problem solving and proper laboratory technique.

The goal of this course is to acquire the tools needed to understand the world from a chemical viewpoint.

STANDARDS MET

This course meets the following California state standards. Specific standards met for each assignment are listed with the assignment in the course itself.

REQUIRED TEXTS

All reading materials are available online, but will also be provided as links through the course website. Other selected readings for nonfiction available within the course.

COURSE OUTLINE

Below is a summary of the topics of study covered in this course:

Unit 8: Acids & Bases

- Block 1 Project - A Student's Guide to Healthy Blood pH
- Block 1 Discussion: Alkaline Water Discussion
- Block 1 Discussion: Ketosis
- Block 2 How Does Dilution Affect pH Levels?
- Block 2 pH and Drug Absorption Activity OPTIONAL
- Block 3 PSA Ocean Acidification Project

- Block 3 Discussion: Ocean Acidification

Unit 9: States of Matter
- Block 4 States of Matter Review
- Block 4 Water Cycle Project
- Block 4 Discussion: KMT and Weather
- Block 5 KMT of Gases and Pressure & Temperature Conversions
- Block 5 Phase Diagrams
- Block 5 State of Matter - Liquids
- Block 5 States of Matter - Solids

Unit 10: Gases
- Block 6 Boyle's and Charles's Laws
- Block 6 Introduction to Gas Laws
- Block 7 Gay-Lussac and Combined Gas Law
- Block 7 Review & Ideal Gas Law
- Block 8 Dalton's and Graham's Laws and Ideal Gas Law
- Block 8 Review Sheet EXTRA CREDIT
- Block 8 Unit Test Gas Laws
- Block 9 Gas Law Project

Unit 11: Thermodynamics & Thermochemistry
- Block 10 Intro & Joule Conversions
- Block 10 Intro to Thermodynamics
- Block 10 Discussion: Thermodynamics
- Block 11 $q=m\Delta T$
- Block 11 Thermodynamics Creative Project

Unit 12: Equilibrium
- Block 12 Le Chatelier's Principle
- Block 12 Discussion: Equilibrium

Unit 13: Light Waves & Electromagnetic Spectrum
- Block 13 Light Waves & Electromagnetic Spectrum Mini-Project
- Block 13 Discussion: Why is the Sky Blue

Unit 14: Chemistry is Everywhere
- Block 14 Discussion: Chemistry Infographics

RESOURCE/MATERIALS USED IN THIS COURSE

All learning materials in this course are original content or copyright compliant. Materials may include but are not limited to: original videos and worksheets, resources from subscriptions that iLEAD pays for, copyrighted materials that are used for instructional purposes, films and articles from credible sources used for educational instruction.

METHODS OF INSTRUCTION

This is an online course, and while there is flexibility in how and when you do assignments, it is best to log in and complete work each day according to the posted pacing schedule. Each BLOCK in a course is worth about 1 week of work during the regular semester. You can find our suggested pacing guide at ileadonline.org under 'CALENDARS'. It is highly recommended that learners follow the pacing schedule posted. Please be sure to check in with your teacher of record (coach/EF/Guide/ES) for guidance with scheduling.

This course uses project based learning to encourage an authentic, developed appreciation of the topics covered. That means that while it may include quizzes and some traditional assessments, the bulk of the coursework focuses on projects that require learners to display their learning in a thorough and creative manner. If you are struggling to complete your work or you need some assistance with an alternate schedule or workload, please contact me as soon as possible. I am more than happy to help support your success in the class!

LEARNER EXPECTATIONS

The learner is expected to participate in the course via e-mail, discussion boards (or other communication) with the facilitator, by reading the assigned readings, submitting assignments and completing and submitting original work.

Learners are expected to check their course and email account every day and complete work on time as assigned with designated dates and time.
Learners are expected to communicate with their instructor and each other in a respectful manner. Please follow the guidelines below:

1. **Make sure identification is clear in all communications**. If you are emailing or messaging your instructor or eachother, please be sure they know who you are and what class you're in. That really helps with clear communication.
2. **Review what you wrote and try to interpret it objectively.** When we speak face to face and are misunderstood, we have an on-the-spot opportunity to rephrase our words. In writing, we must strive twice as hard to be understood, as we do not have the benefit of modifying or elaborating in real time. All caps ("I'M SHOUTING") and exclamation points ("Give me a break!!!") can be misinterpreted as intense anger or humor without the appropriate context.
3. **If you wouldn't say it face to face, don't say it online.** When you're working online, you're safe behind a screen, but that's no excuse to be ill-mannered or say things you would never say in public.
4. **Use emoticons when appropriate.** In casual chatroom settings, emoticons can help convey feelings that may otherwise get lost in translation, including humor, exasperation, exhaustion and even confusion. These aren't the best choice for formal assignments or projects though.
5. **Respect others' voices and be kind.** We all come from different backgrounds and have our own stories. Assume the best of eachother and always be kind in your communication.
6. **Remember, if it's on the internet, it's everywhere.** Don't share personal information about yourself in a public online forum, especially something that could put your safety or security at risk.
7. **Practice Patience:** All your facilitators are doing their best to grade work in a timely manner. We also want to give you meaningful feedback, which takes some time. If you feel like there has been an error or an assignment was missed, please reach out with your name and class and we will do our best to sort it out.

(UTEP Connect)

GRADING

Each assignment is given a specific number of points. The number of points earned by the student is determined and a percentage is calculated. The raw score is recorded in the grade book. An overall grade in the course will be determined according to your school's grading scale.

SUBMITTING ASSIGNMENTS

All work must be submitted to Brightspace, our learning management system. This is very important for record keeping and compliance. You have access to directions on how to do this in the 'Course Resources' folder of this class and in your Orientation class. If you need any help submitting work please reach out to your instructor and we will make time to ensure that you're able to turn in work to Brightspace.

HONESTY AND PLAGIARISM

Academic Integrity is essential to authentic learning. We want you to get the most out of your courses, and a BIG part of that is learning how to:

- Come up with your own ideas
- Use technology (like AI and other Online resources) to inform your original ideas
- Research in ways that help you develop your thoughts
- Give credit where credit is due
- Explore and use tools (like AI, citation generators, etc.) that help you grow as a person and a learner

Please review THIS RESOURCE for more information on plagiarism and this guide for choosing, using and citing resources.

Our goal is to support you so that you can learn in a meaningful, authentic way. Any plagiarized work (this includes work generated solely by AI) will be given a zero and referred to your EF/COACH/GUIDE for review. From there we will work with you to support you as best we can.

PRIVACY POLICY

All work submitted is the property of the author and is not available to anyone not in the class. If work is to be submitted or viewed outside of this website, I will obtain permission from the author. FERPA Info