

AP Chemistry Syllabus
Jefferson High School – 2018-2019
Instructor: Mr. Price Email: d.price@k12.wv.us

Course Description:

With the ever-increasing need for innovators, problem finders, and designers of materials, pharmaceuticals, and even new fuels, comes the need for individuals skilled in the science practices and knowledgeable about chemistry. The AP Chemistry course provides students with training for such knowledge and skills through guided inquiry labs, a focused curriculum on content relevant to today's problems, and an exam that assesses students' mental models of the particulate nature of matter instead of memorization of rules to understand chemistry.

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. The goal is that students will take the AP Exam to receive college credit or placement at the student's college of choice. Students may be able to undertake second-year work in the chemistry sequence at their institution or take courses for which general chemistry is a prerequisite. For other students, this course fulfills the laboratory science requirement and frees time for other courses.

Colleges may require students to present their laboratory materials from AP science courses before granting college credit for laboratory, so students are encouraged to retain their laboratory notebooks, reports, and other materials.

AP Chemistry centers around six big ideas and seven science practices:

Big Ideas

1. Structure of Matter
2. Bonding and Intermolecular Forces
3. Chemical Reactions
4. Kinetics
5. Thermodynamics
6. Chemical Equilibrium

Science Practices

1. Drawing, explaining, and interpreting representations
2. Using mathematics and logical routines appropriately
3. Asking and refining scientific questions
4. Designing and implementing data collection strategies
5. Analyzing and evaluating data
6. Making predictions and justifying claims with evidence
7. Connecting chemistry concepts across the big ideas.

Students who take the AP Chemistry course, designed with this curriculum framework as its foundation will develop a deep understanding of the concepts within the big ideas through the application of the science practices in the required laboratory component of the course. Students will complete a number of hands-on lab investigations to support the learning objectives in the curriculum framework. The result will be readiness for the study of advanced topics in subsequent college courses — a goal of every AP course

Safety instruction is integrated in all activities, and students will implement safe procedures and practices when manipulating equipment, materials, organisms, and models.

Daily Procedures and Class Routines:

Every day students are to be prepared for class by pre-reading from the text or laboratory manual, reviewing the previous day's notes and handouts, and reporting to class ready to learn and participate.

The study of AP Chemistry includes learning academic theory as well as hands-on practice, and is divided into two distinct routines.

Theory - On typical days the textbook serves as a primary foundation for teaching and learning. In addition to emphasizing key points within the text and accompanying ancillary materials, the typical AP Chemistry lecture also includes computer animations, video clips, and other media. Students actively engage in lecture by observing chemistry demonstrations, solving problems and performing calculations in class, participating in discussions, and taking notes. In addition to regular reading, homework assignments include questions and problems such as those found at the end of each chapter. Quizzes and chapter tests are created from the textbook question banks and are also derived from laboratory exercises. Semester Exams are cumulative and include questions from all the aforementioned sources. On lecture days students are to report to class with the textbook, notebook, calculator, and writing utensil. Students will take their assigned seats and begin working on the day's assignment, which will be posted on the board at the beginning of class.

Practice - A wide range of "Traditional" laboratory experiments and guided-inquiry experiments (together, "labs") are dovetailed into the curriculum throughout the year. Approximately one day per week will be devoted to lab. Labs are designed such that students physically manipulate laboratory equipment, glassware, and chemicals in order to make relevant observations and collect data; analyze the collected data to form conclusions and evaluate hypotheses; document the purpose, procedures, data, calculations and analysis, and conclusions in laboratory notebooks; and (with selected experiments) detail and communicate experimental procedures and findings in formal laboratory reports and presentations. Semester Exams also include a lab practical component. On lab days, students are to dress for lab, bring lab notebooks, the current lab procedures, and be ready to begin lab asap.

Extended Laboratory Period:

Because of the complexity of many AP Chemistry laboratory experiments, lab days are extended 30 minutes into Cougar Hour. Students are expected to work on lab until completion. On lab days, students who do not complete the lab during the extended period may return and complete extended labs after school as needed.

Grading Practices, Assignment Types and Weights:

Grades are assigned in accordance with Jefferson County Schools policy. Student grades will be weighted approximately as follows:

- 35% Tests and Quizzes
- 25% Laboratory Exercises
- 20% In-Class Assignments and Class Participation
- 10% Term Project
- 10% Homework

The class utilizes the WVDE standard grading scale:

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

Assignment Due Dates and Late Work Submission:

Current assignments and due dates are posted on the board daily. The deadline for submitting assignments is the end of the student's class period on the due date posted. Assignments may be turned in prior to the due date if the student anticipates being absent on the due date. Assignments not turned in by the deadline will be marked as Missing ("M") and earn a grade of zero.

Except as outlined below, assignments turned in after the deadline will not be graded. To ensure evaluation of late work, all assignments submitted after the deadline must be clearly labeled on the header as "LATE" and include a brief written, valid explanation for the delay, together with the students initials or signature and the date submitted. (Example, "**LATE - Absent on [date]. [Initials] [date submitted]**".) Please note the date submitted must be within the timeframe outlined below.

Homework Expectations

The academic study of AP Chemistry requires that students exercise the "intro, practice, review" method of teaching and learning, whereby students are introduced to a new concept in class, practice at home, then review the following day in class. Therefore,

students are assigned homework most weekday evenings. (Homework is not usually assigned on weekends or holidays.) The goal of homework is to aid in deep learning. Copying other students' work or failing to complete the homework as assigned is unacceptable. Homework is graded based on demonstrated effort.

Make-up Work and Missed Assignments:

In accordance with Jefferson County School policy, students will be granted a minimum of one school day for each day of absence to complete assignments once they are provided (e.g., missed Tuesday, return and receive work Wednesday, due Thursday). It is the student's responsibility to initiate the request for the missed assignments and to complete the make-up work in the time allotted.

Work assigned prior to an absence that comes due during the absence must be turned in upon return from the absence. Students are encouraged to contact their teachers through LiveGrades to request assignments. During extended absences, students without access to LiveGrades may contact their School Counselor to request assignments. Please allow 48 hours for requests to be honored, and note that not all assignments may be available if requested in advance.

If a student misses work due to being sent out or called out of class, the student will be allowed to make up the work in accordance with the above-referenced policies and procedures, even if the reason for being sent or called out is related to disruptive behavior or other matter related to behavior discipline.

When a student misses work due to sleeping in class, walking out of class, skipping class, or work refusal, the student will receive a failing grade for the assignment. The student will not be permitted to re-take or make-up the assignment, unless the assignment is a test. If the assignment is a test / assessment, the failing grade will be recorded, and the student may initiate a request for reassessment in accordance with the county grading policy.

Recommended School Supplies:

In order to make the most of AP Chemistry class, the following supplies are recommended:

- Two Standard 1-1/2" 3-Ring Binders
- One Set of 5-Tab Dividers
- Standard 3-Hole Punched Notebook Paper
- Pens and/or Pencils
- 3-Prong Pocket Folder
- Composition Notebook (Quad Rule preferred)
- Scientific Calculator (Texas Instruments TI 30Xa (or any TI 30 Series), Casio FX115ES or FX300ES, or other scientific calculator.)

Safety equipment is provided by the school. The school provides chemical splash-resistant safety goggles, chemical resistant aprons, and other required safety equipment as required to provide adequate protection from injury. Students may purchase and use their own safety equipment, provided it meets OSHA requirements and provides adequate safety protection. Please note, only certified "chemical splash resistant" goggles and only flame resistant and chemical resistant aprons or lab coats are permitted in lieu of school-provided safety gear.

Safety in the Science Laboratory:

Students are expected to demonstrate basic knowledge and understanding of safety rules and procedures before working in the laboratory. Students will not be permitted to participate in laboratory activities if the teacher has reason to believe students' safety will be compromised.

Classroom Rules and Expectations:

Excellent behavior and cooperation is greatly appreciated. Students are STRONGLY ENCOURAGED to make the most of their learning opportunities. Behaviors that disrupt the learning process of others will not be tolerated.

Students are expected to know, understand, and follow all rules and expectations as set forth in the Jefferson High School Student-Parent Guide and other rules and regulations by Jefferson County Schools. Due to the nature of the AP Chemistry classroom and laboratory environment, students must also adhere to the following:

- Sit in your assigned seat (or designated lab station during laboratory exercises).
- Begin work immediately when the tardy bell rings and remain on task until dismissed by the teacher.
- Remain quiet during class and pay attention while the teacher is speaking.
- Do not eat, drink, or chew gum in the classroom or laboratory.
- Dress appropriately on lab days (certain labs require closed-toed shoes, long pants, tying back long hair, removing contact lenses etc.) and wear all required safety equipment at all times while in the laboratory area.
- Do not touch any lab equipment, chemicals, or other materials or apparatus until instructed to do so.
- Keep your work area and lab station neat and organized and always clean up after yourself.
- Act in a safe, responsible manner. Always handle tools, equipment, chemicals, and other materials and apparatus with care. Horseplay or potentially dangerous acts will not be tolerated.

Cell Phones and Personal Electronic Devices:

While "smart devices" can be useful educational tools, disruptive or distracting use is strictly prohibited. This class utilizes the school-wide color-code system for smart

device use.

- RED - Smart devices are prohibited any time the red card is displayed.
- YELLOW - Individual students must request permission before using any smart device. Permission is granted on an individual basis only.
- GREEN - Students are permitted to use smart devices without asking.

Smart devices are always prohibited during tests and quizzes. Otherwise, when use is permitted, use shall be limited to relevant educational purposes only. All other use is prohibited. Please be reminded that it is your responsibility to use such devices appropriately at all times while at school.

Cougar Hour Academic Assistance:

Students are strongly encouraged to visit Mr. Price in room B-14 on Tuesdays during Cougar B for free tutoring, to work on class assignments, and to make up the most recent laboratory exercise. No appointment necessary.

Keys to Success in Mr. Price's Class:

1. Get to class on time every day. Class starts when the bell rings, so be ready!
2. Pay attention in class. Now is a great time to learn how to ignore distractions and stay focused!
3. Read, read, and read some more. It's amazing how much you can learn from the book!
4. Take the time to do your best. Quality matters in everything you do!
5. If you are having difficulty, please ask for help. Mr. Price is here to help you succeed!

Teacher Contact Information:

The fastest, most reliable way to reach the teacher is via email at d.price@k12.wv.us. Every effort is made to respond to email within 1 school day.

Parents and students are strongly encouraged to contact the teacher anytime with questions, concerns, or suggestions to ensure student achievement.

Mr. Shane Price
Email: d.price@k12.wv.us

INSTRUCTIONS: Please print, sign, and return this page only. Thank you!

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A digital copy of this Syllabus will be posted on Mr. Price's teacher web page. As part of a school-wide effort to reduce consumption and waste, a paper copy of this Syllabus will be only provided upon request.

Print Student Name: _____ Class Period: _____

Acknowledgement:

I have read and reviewed the AP Chemistry Syllabus in its entirety and agree to adhere to the policies and procedures as set forth herein.

Signature of Student

Date

Signature of Parent/Guardian

Date

Parent/Guardian Contact Information:

Email Address: _____

Phone: _____ Best Time to Call: _____