

PRE-AP CHEMISTRY I

Syllabus

James Clemens High School
11306 County Line Road
Madison, AL 35756



Teacher: Mrs. Emily L. Harris
Email: elharris@madisoncity.k12.al.us
Phone: 256-216-5313 ext 95067.

- I. Course Description:** This is an accelerated course designed to prepare students for Advanced Placement Chemistry.
- II. Course Objectives:** Students will:
- ⤴ Differentiate among pure substances, mixtures, elements, and compounds.
 - ⤴ Describe the structure of carbon chains, branched chains, and rings.
 - ⤴ Use the periodic table to identify periodic trends, including atomic radii, ionization energy, electronegativity, and energy levels.
 - ⤴ Describe solubility in terms of energy changes associated with the solution process.
 - ⤴ Use the kinetic theory to explain states of matter, phase changes, solubility, and chemical reactions.
 - ⤴ Solve stoichiometric problems involving relationships among number of particles, moles, and masses of reactants and products in a chemical reaction.
 - ⤴ Explain the behavior of ideal gases in terms of pressure, volume, temperature, and number of particles.
 - ⤴ Distinguish among endothermic and exothermic physical and chemical changes.
 - ⤴ Distinguish between chemical and nuclear reactions.
- III. Classroom Expectations:**
1. **BE ON TIME.** Tardy means that you are not in the room and getting seated when the bell rings. JCHS policy governs the consequences for tardiness.
 2. **BE RESPECTFUL:** Practice courtesy and mutual respect. Treat others as you would like to be treated. The classroom and laboratory is to be regarded as a safe and supportive learning environment.
 3. **BE PREPARED:** Mentally focused on reaching your goals and following class expectations; and physically bringing proper materials EVERY DAY.
 4. **BE RESOURCEFUL:** Thoroughly review assignments, videos, textbooks, and notes to answer questions before asking me.
- Accommodations:**
Requests for accommodations for this course or any school event are welcomed from students and parents. Please discuss this with the teacher on an individual basis.
- Laptop and electronic device utilization:**
1. This class will make use of scientific technology, most of which will be provided in the classroom.
 2. Cell phones are not required for 95% of the activities in this class. Students will be required to keep their cell phones put away in a backpack when not in use.
 3. Laptops and other electronic devices will be used at the individual discretion of the teacher.
 4. Neither the teacher nor the school is responsible for broken, stolen, or lost laptops.

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IV. Grading Policy: Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The Final Exam counts for 1/5 of the final grade.

There may be projects assigned. Students should be prepared to work in the home with several students. All safety rules learned in class should be applied at home. Be aware that some of the materials students use at home may damage household contents. Students should be thoughtful of their working environment.

V. Make-up Test Policy: Make-up tests are only allowed for excused absences. Students should meet with the teacher upon their return to discuss a make-up time/date. Students are responsible for completing and submitting missed assignments due to an excused absence in accordance with JCHS policy.

VI. Text and Other Required Reading: Text: Introductory Chemistry: A Foundation, Zumdahl and DeCoste, 2015

VII. Materials and Supplies Needed:

- 3-RING BINDER (at least 1") dedicated for this class only
- loose-leaf, college-ruled paper
- pencils
- black or blue pen
- at least one highlighter
- SCIENTIFIC CALCULATOR – extremely important! (a graphing calculator may also be used if a student already has one)
- GRAPH-RULED COMPOSITION NOTEBOOK (for lab)
- Roll of paper towels (for lab)
- Nitrile (non-latex) gloves (optional, but very much appreciated!!)
- Box of Kleenex (optional, but very much appreciated!! 😊)

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18 WEEK PLAN: PRE-AP CHEMISTRY

Week 1	Safety, Classification and Investigation of Matter
Week 2	Units of Measure, Accuracy, Precision and Dimensional Analysis
Week 3	Atomic Structure/Periodic Table/Electron Configurations/Nuclear Reactions
Week 4	Atomic Structure/Periodic Table/Electron Configurations/Nuclear Reactions
Week 5	Chemical Bonding and Intermolecular Forces and Organic Chemistry
Week 6	Chemical Formulas and Compounds
Week 7	Chemical Formulas and Compounds
Week 8	Chemical Reactions and Equations
Week 9	Chemical Reactions and Equations
Week 10	Stoichiometry
Week 11	Stoichiometry
Week 12	KMT with Gases
Week 13	Gases
Week 14	KMT with solids and liquids
Week 15	Solutions
Week 16	Acids and Bases
Week 17	Thermodynamics/Rates of Reaction
Week 18	Equilibria

* The syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions, or substitutions. Adequate notice will be provided to students of any necessary changes.