

Honors Chemistry 1 (9th grade)

Fall 2018

Mrs. Diana Judy

2nd Block Prep

diana.judy@knoxschools.org

Classroom Outcome

Honors Chemistry I is a semester long science course that will focus on the following basic chemistry concepts: measurements, matter, atomic theory, periodic law, electron configuration, chemical bonding, chemical nomenclature, stoichiometry, gas laws, solutions, and acid/base chemistry. **It is designed for students who have earned A's in both Physical Science and Honors Algebra 1 in 8th grade.** Problem solving and analysis of laboratory work are key components to chemistry. Classroom information will be presented on information outlined in the Tennessee State Objectives as well as the Knox County School Objectives for Chemistry I. This classroom will not discriminate against the religious beliefs of any student. Subject matter will be presented through lectures, class discussions and labs. Homework assignments and quizzes will be used to reinforce the subject matter.

Instruction and Pacing

Chemistry I

	Standards	Textbook Page Numbers	Approximate Time (out of 80 days, % in parenthesis)
Module 0: Measurement and Lab Safety		Ch.1, p22-26; Ch 3 p60-91	5 (6.25%)
Module 1: The Atom	CHEM1.PS1.11, CHEM1.PS1.10, CHEM1.PS1.9, CHEM1.PS4.1	Ch 4, 100-125; Ch 25 p874-905	7 (8.75%)
Module 2: Periodic Table and Quantum Mechanics	CHEM1.PS1.12	Ch 5-6, p126-191	6 (7.5%)
Module 3: Bonding and Nomenclature	CHEM1.PS1.13, CHEM1.PS2.1, CHEM1.PS1.14	Ch 7-9, p192-303	11 (13.75%)
Module 4: Equations and Mole Concept	CHEM1.PS1.2, CHEM1.PS1.4, CHEM1.PS1.1	Ch 10-11, p 304-381	6 (7.5%)
Module 5: Stoichiometry	CHEM1.PS1.3	Ch 12 p382-417	9 (11.25%)
Module 6: Energy	CHEM1.PS3.1, CHEM1.PS3.2, CHEM1.PS3.3, CHEM1.PS3.4	Ch 17 p554-591; Ch 13 p 418-447	10 (12.5%)
Module 7: Gas Laws	CHEM1.PS1.5, CHEM1.PS1.6,	Ch 14, p448-485	9 (11.25%)
Module 8: Solutions	CHEM1.PS1.7, CHEM1.PS2.3, CHEM1.PS2.4, CHEM1.PS1.15	Ch 15-16, p 486-553	10 (12.5%)
Module 9: Acids and Bases	CHEM1.PS1.8	Ch 19 p 644-689	7 (8.75%)

The following honors skills are included during the course:

Module 0: significant figures

Module 1: emission spectra

Module 2: atomic radii phenomenon and electron affinity

Module 3: bond dipoles, polarity, and intermolecular forces

Module 4: activity series

Module 5: limiting and excess reactant calculations

Module 6: IMFs with heating/cooling curves, calorimetry, heats of reaction

Module 7: non-STP conditions

Module 8: ppm, net ionics, IMFs with solubility, calculating colligative properties

Module 9: Lewis acid-base theory, pH, pOH, $[H^+]$, $[OH^-]$, K_w calculations, and titrations

Materials needed for class

1. 3-ring binder (2 inch) and 10 tabs - due by August 15, 2018 (counts as a grade and then will be graded each unit)
2. assignment book - due by August 15, 2018 (counts as a grade and then will be a weekly grade)
3. signed safety contract
4. pencil pouch containing: several pencils (sharpened or with extra lead), eraser, blue or black pens (at least 2), red pen, 2 highlighters, colored pencils or markers
5. scientific calculator
6. loose-leaf notebook paper and graph paper

Chemistry Fee

Honors Chemistry I class fee is \$30 for the semester. This money is used to purchase lab supplies like chemicals, replacement glassware, or other consumables used to perform activities performed throughout the semester. Please make the checks to GIBBS HIGH SCHOOL and include student name in the memo section.

Resources

- ❑ Textbook: Pearson, *Chemistry*. 2017. Each student will be assigned a textbook that they are expected to bring to class daily. These books are new so it would be a good idea to put a book cover on them. The replacement price of the text is \$101.47.
- ❑ Videos: Discovery Education, United Streaming, Nova: Hunting the Elements, Cosmos: A Spacetime Odyssey, Lab Safety Video, The Power of the Periodic Table, Chemistry, Bill Nye, BBC Life, BBC Planet Earth, NOVA (PBS), Nature (PBS), Myth Busters, PBS Kids, NASA site, USGS site, National Geographic Society site, University of Tennessee Departments (EEB, BCMB, Micro, Botany, Chemistry, and Physics), PHET Labs, teachertube.com, schooltube.com, GPB, Crash Course Chemistry, Bozeman videos and other school approved videos.
- ❑ All videos and articles that are used have academic value and are approved for academic use.

- ❑ If you do not approve of a specific resource or assignment listed in this syllabus, please make your request to me in writing and an alternative assignment and/or material will be provided. The request should include your name, the child's name, the specific activity/materials in which you do not want your child to participate or to which you do not want them exposed, and the nature of your objection.

Safety Procedures

Chemistry is a laboratory based class. The labs we will perform will greatly enhance the understanding of the material being presented in class. A detailed explanation of safe lab practices and clothing will be given both through a safety video and lecture. You will be expected to sign and return a lab safety contract as well as take a lab safety test in order to participate. **Failure to dress appropriately for lab will result in a paper/pencil seat assignment to make up for the missed lab. Sitting out for improper attire is done to make sure that you and others are safe in the lab.**

Assessment

Students will be assessed on the learning standards and associated skill found in the curriculum and used in the classroom. The standards can be found on the Knox County Schools website.

Grading Policy:

- Grades are calculated using a point system. It would be a good idea for you to keep a record of your grades in the front of your notebook. You can calculate your grade by using the following formula: $\frac{\text{points you earned on assignment}}{\text{points possible on assignment}} \times 100$. This also would apply to the class totals of points you have earned throughout the semester over total possible.
- The school grading scale is:
 - A = 93-100
 - B = 85-92
 - C = 75-84
 - D = 70-74
 - F = below a 70
- Your grade is a combination of daily grades (90%) and the end of course exam (10%).
- Daily grades come from the following
 - Homework - is given to reinforce and assess your learning of the standards and skills being taught in the class. It is important to keep up and complete all assignments!
 - Homework is to be completed in pencil with all work shown for math problems or appropriate labels for graphs and diagrams.
 - Homework is to be neat and legible. If I can't read it, I can't grade it.

- Homework is to be turned in to the appropriate spot as designated by teacher **BEFORE** class begins. (otherwise it is late)
 - Late work will be worth 50% of the points earned and will not be taken after the unit exam.
 - Homework points will range from 5 - 50 points per assignment.
 - Labs are a reinforcement of standards and skills being taught. Chemistry is a hands on science. In order to perform the lab you must be present and dressed appropriately and prepared. If you miss a lab, you will most likely not have a chance to make it up. Labs and their reports are worth 20 - 75 points.
 - Quizzes are worth 20 - 50 points.
 - Tests are worth 100 points.
 - Projects may be assigned throughout the semester and be worth anywhere from 50-200 points.
- Make-up work is your responsibility to request and return within 3 days of returning to school from your absence. After 3 days the work will count as a late assignment up to the day of the unit exam. Tests and quizzes must be made up within a week of the absence. Students are expected to be prepared to participate in all previously assigned classroom activities, including tests and quizzes on the day he/she returns to class. For planned absences, see teacher ahead of time to get missed assignments to turn in upon return to school. Long-term projects are due regardless of an absence and should be sent to school if the student must be absent.
- Grades will be updated on Aspen at least once per week
- Internet assignments from our new textbooks will be assigned throughout the semester. If you do not have access to the internet at home, you will need to speak with me about getting a paper copy of these assignments/quizzes.

General Expectations

- Attendance is of utmost importance to learning chemistry. The state curriculum is very demanding and everyday counts in preparing for the EOC exam. Labs and some videos or other activities cannot be made up. Students will not be penalized by losing points but will be responsible for getting material missed.
- Classroom rules
 1. **Be on time to class.** When the bell rings, you should have already turned in your homework (if assigned) and be in your seat prepared for class to start. Go to the restroom and do any errands during class change. Bathroom passes are for emergencies only. Excessive bathroom usage will result in a phone call home and after class detention/lunch detention.
 2. **Be respectful of your classmates and teacher.** I do not expect negative comments about classmates or your teacher(s).
 3. **Participate in class!** Be an active member of discussions and group work. You are an important part of our class.

4. **Cell phones and other devices off and out of sight for entire period unless otherwise instructed by teacher. There is a new extra credit opportunity available this year. Upon entering the classroom, students can turn off their phones and place them in the assigned cell phone holder for the entire period. I will take a picture once the tardy bell rings to see whose phones are present. Students who turn in their phones will earn 1 bonus point per class period. I will keep track of this and put the bonus points in every 2 weeks. I do not tolerate texting, etc during my class! Cell phones are a distraction that prevents the student from paying attention and learning the material. Attached to this syllabus is an article that was on WATE citing research about how cell phones lower student grades.**
 - a. 1st offense - phone will be taken by the teacher and kept at her desk until the end of the class period and I will contact parents
 - b. 2nd offense and beyond - phone will be turned in to the office at the end of the period along with an office referral and contact with parents
 - c. Phones and smart watches will be collected on test days and placed in assigned cell phone holder, they will be returned after ALL tests are completed and turned in. Students caught using a phone during a test/quiz for whatever reason will receive a zero with no chance of a re-take.
 5. **NO food or drinks (other than water) in the classroom.** Classrooms are not cafeterias or break areas. All food needs to be consumed prior to coming into the classroom. Uneaten food or drinks must be put away in your backpacks not left out. If you try to eat during class or drink other beverages you will be asked to throw them away. Failure to do so will result in disciplinary actions.
 6. **DO NOT interfere with any person's right to learn** - talking, acting a clown, or disrupting class is not going to be tolerated at all. You will be moved away from the group or to the office depending on the severity of your actions.
 7. **Listen and follow instructions the first time please.**
 8. **Respect my classroom and property.** Do not write or carve on desks. Pick up all trash and throw away in trash cans. Leave the room like it was before you entered.
 9. **Follow all lab safety rules.** All members are responsible for cleaning up and being active members of the lab group. Failure to clean up after labs/activities will result in a suspension of such activities. It is not your teacher's job to clean up your messes!
 10. **Do your own work.** You will not learn by copying. It is your responsibility to do your own work and learn the material. Cheating will not be tolerated and will result in zeros!
 11. **Remain seated until dismissed by the teacher.**
- **Failure to follow class rules will result in disciplinary actions as defined in the Student Handbook.**
 - **Plagiarism** - According to Harbrace Handbook, 15th ed. "Plagiarism is defined as presenting someone else's research, or opinion as your own without proper documentation, even if it has been rephrased. It includes, but is not limited to the following:

- Copying verbatim all or part of another's written work;
- Using phrases, figures, or illustrations without citing the source;
- Paraphrasing ideas, conclusions, or research without citing the source;
- Using all or part of a literary plot, poem, or film without attributing the work to its creator."

Plagiarism is a form of stealing and academic fraud. Students who are found guilty of plagiarism will face consequences of a zero for the assignment. Parents will be informed of the plagiarism.

- Honor Code - Students are expected to complete their own assignments and assessments. Also, they are expected to not share their answers or assignments with other students. If students are caught cheating, disciplinary actions will be taken. Zeros will be assigned.
- Results of not following class rules:
 1. Verbal Warning
 2. Conference with student to discuss how to "fix" problem.
 3. Student moved to new location in classroom until behavior problem is fixed and phone conference with parents.
 4. Office referral and phone conference with parents.
 5. Steps can be skipped or altered depending on the severity of the offense or for cell phones.
- Communication Strategy
 - Please contact me with any questions or concerns about your student.
 - Office Hours - My planning period is 2nd block.
 - Appointments can be made during this time or before or after school.
 - Email : diana.judy@knoxschools.org
- Intervention Strategy

If your need extra help all you have to do is ask. I am available before or after school to answer your questions or provide extra tutoring time with a topic you are having trouble with. Please don't wait, it is better to clear up problems as soon as they arise. Just ask and we will work out a time. I will be setting up a schedule with tutoring days and times during the first week of class. Remember the Flying J tutoring center is also open on Thursdays after school.

Please return the following to Mrs. Judy's Honors Chemistry I Class.

I have read and understand the class expectations of Mrs. Judy's Chemistry Class, especially the cell phone policy.

Student Name : _____(Printed)

Student Signature & Date: _____

Parent information:

What is the best time and phone number to contact your if necessary?

Time _____

Phone Number _____

I have read and understand the class expectations of Mrs. Judy's Chemistry Class, especially the cell phone policy.

Parent/Guardian Signature & Date; _____