Honors Chemistry

Instructor: Dr. Shannon Crawford, Ph.D. Email: crawfsh1@richmond.k12.ga.us

Remind Code: eega9h8

Course Outline: The chemistry curriculum is designed to continue student investigation of the physical sciences that began in grades K-8. Students will develop good laboratory practices, general chemistry knowledge, and scientific argumentation skills. This curriculum includes concepts such as the structure of atoms, the conservation and interaction of energy and matter, chemical bonding and molecular properties, chemical reactions, and the nature of solutions, acids, bases, and gases. Students investigate chemistry concepts through experience in both directed and guided inquiry laboratory investigation while learning to argue scientifically and participate in self and peer assessment. In Honors Chemistry, students will conduct several independent research projects and a culminating research project at the end of the school year. As part of these independent research projects, students will also give oral presentations detailing the results and will be responsible for writing an independent research paper using APA guidelines.

Textbook: Houghton Mifflin Harcourt, Modern Chemistry

The Georgia Standards of Excellence for Chemistry may be accessed at <https://www.georgiastandards.org>

There is not a Georgia Milestone End of Course test for Honors Chemistry. However, in Honors Chemistry, students will conduct several independent research projects independent and a culminating independent research project at the end of the school year.

Chemistry Curriculum Timeline:

Topic and Week Number: 1-2 Lab Safety and Measurement and Atomic Theory 3. Electron Configuration 4. Periodic Table 5-6. Bonding/ Intermolecular Forces 7-8. Chemical Formulas and Names 9. Chemical Reactions and Equations 10. The Mole Concept 11. Stoichiometry and Limiting Reactants 12-13. Solutions and Concentration 14-15. Acids and Bases 16. Gas Laws and Kinetic Energy 17. Chemical Equilibrium 18. Rates of Equilibrium 19. Final Exam

Supplies Needed- One inch three-ring binder with blank paper, a scientific calculator, pencils or pens

Students should maintain a notebook with class notes and handouts.

Classroom Guidelines: 1. Be ready to begin class when the bell rings. Be seated and begin working on the posted warm-up assignment. 2. Bring your materials to class each day and take them when leaving. The student is responsible for materials and the teacher is not liable for lost materials. 3. Treat everyone and their property with dignity and respect. This includes school property, calculators, and laboratory supplies. 4. Listen and follow directions the first time they are given. 5. Follow ALL guidelines and policies in the Richmond County School of Conduct Student Handbook and all laboratory safety guidelines.

I want to maintain a positive classroom environment, free of disruption and disrespect. Such misbehavior can interfere with orderly class/laboratory procedures and someone else’s learning. Lucy C. Laney High School students are not new to school rules and are expected to independent follow all policies and procedures. If a student chooses to ignore classroom guidelines, the following disciplinary measures will be implemented as needed: 1. Verbal warning. 2. Parent/guardian contact and one day of teacher assigned detention. 3. Parent/guardian contact and two days of teacher assigned detention. 4. Administrative referral for disciplinary intervention. Students who commit a more serious offense (e.g. blatant disrespect, skipping, fighting or incivility) as outlined in the Richmond County Board of Education Code of Conduct. The administrators and faculty of the Science Department at Laney High School are committed to maintaining a hands-on learning approach to Chemistry. Misbehavior involving use of chemicals or heat sources in the laboratory will not be tolerated. Students may be removed from the laboratory at the instructor’s discretion.

Class Grading

Major Assignments- 60% Tests, quizzes, cumulative performance tasks, special projects

Minor Assignments- 40% Classroom daily assignments, labs, research projects

Tutoring is available daily from 3: 30- 4:30.

Dr. Crawford’s Role: 1. Provide you with quality and engaging instruction. 2. Help students become better problem solvers. 3. Assign only meaningful necessary work- no busy work. 4. Grade all assignments in a timely manner. 5. Hold students accountable for their actions and their learning.

Keys to Success: 1. Be present, on time, and have the necessary materials. 2. Complete work on time to the best of your ability. Participate fully in class. Ask questions. 3. Be in charge of your learning and growth. Attend tutoring sessions, if needed. Maintain academic honesty. Show respect for yourself, other students, your teacher, and school property. 6. Follow all Laney High School guidelines in the Richmond County Student Handbook and Code of Conduct.