General Chemistry

Instructor: Dr. Shannon Crawford, Ph.D.

Lucy C. Laney High School

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Remind Code: eg6f6b9

Students and Parents: Welcome to a new year of learning! During this coming year your child will be introduced to the fascinating world of Chemistry. I am a proud alumna of Lucy C. Laney with twenty-eight years of teaching experience. I will be delivering instruction in a variety of ways to suit the various learning styles and abilities in my class. This instruction will include hands- on and technology infused learning activities. The primary goal is to keep students engaged and mastering content in ways that make the learning exciting and meaningful for all learners.

The materials needed for this course include: a charged computer, a three-ring binder with blank paper, pencils/ pens, and a scientific calculator. Students should maintain a notebook with class notes and handouts.

Topics to be covered in this course: 1st Semester 1. Matter and Change 2. Measurements and Calculations primary 3. Atomic Structure 4. Electron Configurations 5. The periodic primary law 6. Chemical Bonding 7. Chemical Formulas and Compounds 8. Equations and Reactions 9. The mole

2nd Semester 10. Stoichiometry 11. Gases 12. Solutions 13. Acids and Bases 14. Thermochemistry 15. Equilibrium 16. RedOx reactions 17. Electrochemistry 18. Nuclear Chemistry 19. Final Exam

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 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 Chemistry. However, in Chemistry, students will conduct several independent research projects independent and a culminating independent research project at the end of the school year.

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 independent 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 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. policies

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.