CHEM 1311: General Chemistry I
Lecture: 3 Semester Credit Hours
CHEM 1311 Mon-Fri Period 5 11:40-12:25
Pampa High School Rm 2162
And

CHEM 1111: General Chemistry Laboratory I
Lab: 1 Semester Credit Hour
CHEM 1311 Mon-Fri Period 5 11:40-12:25
Pampa High School Rm 2162

Clarendon College
Division of Science and Health
Course Syllabus
Fall 2023

Instructor: Mrs. Kimberly Asencio, M.S.

Office Hours and Location: Mon-Fri 7:30 – 8:10 a.m. Pampa High School Rm 2162

Phone: 806.669.4800 Ext 1142

Email: Kimberly.asencio@clarendoncollege.edu

Mailing Address: Pampa High School, 111 E. Harvester, Pampa, TX 79065

CHEM 1311 Course Description: General Chemistry I is the first part of a two course sequence. It is the fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry.

Statement of Purpose: The course is intended to prepare the student for future studies in chemistry and other related scientific areas. This course meets the core requirements of a laboratory science for the Associate in Arts or Associate in Science degree at Clarendon College and is designed for transfer to a senior college.

CHEM 1311 Required Text: *Chemistry: AP Edition* 9th Edition by Steven S. Zumdahl and Susan A. Zumdahl

CHEM 1111 Required Text: *Chemistry: AP Edition* 9th Edition by Steven S. Zumdahl and Susan A. Zumdahl

Supplies: Blue or black pens, #2 pencils, Binder, Chromebook, calculator, paper (to be kept with you at all times)

Methods of Instruction: Lecture, videos, demonstrations, presentations, peer review, readings, internet

Student Rights and Responsibilities: Student Rights and Responsibilities are listed on the College website at:
https://www.clarendoncollege.edu/resources/student%20services/studentrightsresponsibilities.pdf

Core Objectives:

Critical thinking skills (CT) – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

Communication skills (COM) – to include effective written, oral, and visual communication

Empirical and quantitative skills (EQS) – to include applications of scientific and mathematical concepts

Teamwork (TW) – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Learning Outcomes for Lecture:

Upon successful completion of this course, students will:

1. Define the fundamental properties of matter. These outcomes will assess CT and EQS objectives with embedded questions.
2. Classify matter, compounds, and chemical reactions. These outcomes will assess CT and EQS objectives with embedded questions.
3. Determine the basic nuclear and electronic structure of atoms. These outcomes will assess CT and EQS objectives with embedded questions.
4. Identify trends in chemical and physical properties of the elements using the Periodic Table. These outcomes will assess CT and EQS objectives with embedded questions.
5. Describe the bonding in and the shape of simple molecules and ions. These outcomes will assess CT, EQS, and COM objectives with embedded questions.
6. Solve stoichiometric problems. These outcomes will assess CT, EQS, and COM objectives with embedded questions.
7. Write chemical formulas. These outcomes will assess CT and EQS objectives with embedded questions.
8. Write and balance equations. These outcomes will assess CT and EQS objectives with embedded questions.
9. Use the rules of nomenclature to name chemical compounds. These outcomes will assess CT and EQS objectives with embedded questions.
10. Define the types and characteristics of chemical reactions. These outcomes will assess CT and EQS objectives with embedded questions.

11. Use the gas laws and basics of the Kinetic Molecular Theory to solve gas problems. These outcomes will assess CT and EQS objectives with embedded questions.
12. Determine the role of energy in physical changes and chemical reactions. These outcomes will assess CT, EQS, COM, and TW objectives with embedded questions and project evaluations
13. Convert units of measure and demonstrate dimensional analysis skills. These outcomes will assess CT and EQS objectives with embedded questions.

Learning Outcomes for Laboratory:

Upon successful completion of this course, students will:

1. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory. Assesses CT with embedded questions. Assess TW with experimental procedures.
2. Demonstrate safe and proper handling of laboratory equipment and chemicals. Assesses CT with embedded questions. Assess TW with experimental procedures.
3. Conduct basic laboratory experiments with proper laboratory techniques. Assesses CT with embedded questions. Assess TW with experimental procedures.
4. Make careful and accurate experimental observations. Assesses CT and EQS with embedded questions. Assess TW with experimental procedures.
5. Relate physical observations and measurements to theoretical principles. Assesses CT and EQS with embedded questions.
6. Interpret laboratory results and experimental data, and reach logical conclusions. Assesses CT and EQS with embedded questions.
7. Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports. Assesses CT, EQS, and COM with embedded questions and project evaluations.
8. Design fundamental experiments involving principles of chemistry. Assesses CT with embedded questions.
9. Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry. Assesses CT with embedded questions.

Grading Policies: You will receive one letter grade for CHEM 1311 and one letter grade for CHEM 1111. Those grades come from the components described below.

CHEM 1311 Grading Policies: **General Chemistry 1 (3 Credit Hours)**
Major exams- 70% Homework/Quizzes/Daily assignments-30%

CHEM 1311 Grading Policies: **General Chemistry 1 (3 Credit Hours)**
Major exams- 70% Homework/Quizzes/Daily assignments-30%

The final semester grades will be figured as set in the current catalog:

89.5% - 100%	A
79.5% - 89.4%	B
69.5% - 79.4%	C
59.5% - 69.4%	D
59.4% and below	F

A student's final grade will be made available through the Student Portal at Clarendon College's website. Students must complete a course evaluation before they are given access to view their final grades.

Academic Integrity: An Excerpt from Clarendon College's Student Handbook

Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class. Cheating violations include, but are not limited to: (1) obtaining an examination , classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination , classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination , classroom activity, laboratory exercise, or homework assignment ; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory exercise; (9) Plagiarism. Plagiarism is the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person without proper credit.

Disciplinary actions for cheating in a course are at the discretion of the individual instructor. The instructor of that course will file a report with the Vice President of Instruction when a student is caught cheating in the course, whether it be a workforce or academic course. The report shall include the course, instructor, student's name, and the type of cheating involved.
Students who are reported as cheating to the Vice President of Instruction more than once shall be disciplined by the Vice President. The Vice President will notify all involved parties within fourteen days of any action taken.

Classroom Policies:
Pampa High School Student Code of Conduct and Attendance Policy (www.pampaisd.net)

Cheating on tests will not be tolerated. Anyone caught cheating will be given a zero on the test. Makeup tests due to absences are scheduled by the instructor and must be completed within 1 week. Homework will have specific due dates. For each assignment turned in past the due date, 10 pts will be taken off the grade. Work not turned in 72 hours after the due date will not be accepted. Incomplete late work will not be graded. Work received after 24 hours will be graded at your teacher's discretion. No late homework will be accepted after the unit assessment.

Absent Work: If you are absent, it **is your responsibility** to get your missed assignments and notes. There are specific instructions for due dates, tests, and notes. You have the number of days absent plus one to get your work turned in from an absence. If a test is unannounced while you are absent, it has to be completed within the number of days absent plus one. However, if a test was announced before you were absent, you must take it **on the day that you returned!**

American with Disabilities Act Statement: Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, notify the Office of Student Services (806-874-3571 or 800-687- 9737). We will work with you to make whatever accommodations we need to make.

Dropping a Course:
A student may drop any other course with a grade of "W" any time after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar. The request for permission to drop a course is initiated by the student by procuring a drop form from the Office of Student Services. (Refer to other policies concerning this issue in the current college catalog online.)

Withdrawal from College:
When a student finds it necessary to withdraw from school before the end of the semester, he or she should obtain a withdrawal form from the Office of Student Services. Students may also withdraw from the college by sending a written request for such action to the Registrar's Office. The request must include the student's signature, the student's current address, social security number and course information details. Students who withdraw after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar will be assigned a grade of "W."

Tentative Course Schedule/Outline:

CHEM 1311/1111 General Chemistry Course Projections 2022/2023

Lecture	**Labs**
First Six Weeks	
Physical/Chemical Changes Measurement Atomic Theory Atomic Structure and Properties	Introduction to Lab Equipment Density of a Beverage Specific Heat Capacity of an Unknown Metal Hottest Region of a Bunsen Burner
Second Six Weeks	
Molecular and Ionic Compound Structure and Properties Intermolecular Forces	Isotopic Abundance Properties of Ionic and Covalent Bonds Percent Composition of Compound #1 and #2 Empirical Formula of a Copper Chloride Hydrate
Third Six Weeks	
Intermolecular Forces cont. Chemical Reactions	Types of Chemical Reactions Decomposition of Baking Soda Stoichiometry of Iron and Copper (II) Sulfate Intermolecular Forces
Fourth Six Weeks	
Kinetics Thermodynamics	Heats of Solution Heating and Cooling Curves Gas Law Demos Collection of a Gas over Water
Fifth Six Weeks	
Equilibrium Acids and Bases	Electrolytes Precipitation Reactions Reaction Rates Properties of Acids and Bases
Sixth Six Weeks	
Acids and Bases Cont Thermodynamics	Acid Base Titrations Reduction and Oxidation Reactions Voltaic Cells A Comparison of Half-life Simulations