

Rochelle CHEM 1311 – General Chemistry I
Chem 1111 – Chemistry Lab
Syllabus

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Course Description: Chemistry 1311 is a 3 credit dual college lecture class with Angelo State University. In this class, you will study fundamental laws and theories of chemistry, nomenclature, stoichiometry, atomic structure, chemical bonding, the periodic table, chemical equations and reactions and properties of heat flow and gases.

Chemistry Lab 1111 is a 1 credit lab class where students conduct lab experiments that focus on lab technique, data collection and analysis. The experiments will expand upon the concepts and topics presented in Chemistry 1311

Materials:

Textbook: <https://openstax.org/details/books/chemistry-2e>

- ✓ Laboratory handouts will be provided.
- ✓ Google classroom link: **p4x7cie**

Grading:

This dual credit college class consisting of lab and lecture will be one semester's credit **taught over the entire school year** at Rochelle High School. It will begin at ASU on August 23, 2021 and end May 13, 2021. Your ASU final grade will be the average of each semester grade. Your high school grade will cover more material, TEKS that are not included in 1311, and will continue to the end of the school year.

Grading will reflect Rochelle High School guidelines.

55% - Exams and Projects

45% - Labs, quizzes, assignments (25% Labs, 10% Quizzes, 10% daily with homework.)

Quizzes will test proficiency in working problems. There will be an opportunity to drop the lowest quiz grade each semester.

Last day to drop the course with a grade "w" is in Spring Semester

Lab Course: The CHEM 1311 General Chemistry laboratory class accompanies this lecture class. The lab is designed to illustrate some of the principles involved in performing scientific measurements, handling chemicals, and performing chemistry experiments. Labs are mandatory.

Labs and Lab Reports

The lab handouts will provide a description of the background for each experiment, pre-lab questions that will be turned in at the beginning of the lab period, a procedure for the experiment and a lab report form which must be handed in when the lab is completed. It is essential that you read the material before the lab. The Lab grade is a stand alone 1-credit grade for ASU.

Grades will be 45% Tests (includes Safety)

55% Lab work

Academic Dishonesty

Students are responsible for understanding the Angelo State University Honor Code, which is found in the Student Handbook (www.angelo.edu/cstudent/).

Students are expected to work independently on quizzes, exams and lab reports. See the ASU Student Handbook for definitions of cheating and plagiarism.

Chemistry 1311, 1111 Course Schedule 2021-22

Fall Semester Tentative Schedule

	Week of	Lecture	Lab
1	8/02	Introduction and Safety. Safety Quiz	
2	8/9	Measurement and the metric system, dimensional analysis	Volume Measurement Lab
3.	8/16	Measurement, Dim Anal EXAM States and classification of matter	
4	8/23	Measuring props of matter: density and separation of matter	Properties of Matter Lab
5	8/30	EXAM Matter. Begin atomic theory	
6	9/6	Labor Day, 3 day week. Atomic Theory, isotopes	
7	9/13	Average atomic mass. Valence electrons and Lewis Dot structures	
8	9/20	Electron configuration, atoms and ions Periodic Properties	Trends in Periodic table Lab
9	9/27	<i>Thursday is end of 9 weeks grading period.</i> EXAM Atomic Theory ; Electrons and light lecture	
10	10/4	Electromagnetic spectrum, E, λ , f calculations, Electron Configuration	Flame test lab
11	10/11	Chemical Bonding: Ionic and Covalent bonding and properties, nomenclature	Ionic vs Covalent compounds lab
12	10/18	Metallic bonding Electrons and Bonding EXAM	
13	10/25	Covalent VSEPR, geometry, hybridization	
14	11/1	Covalent VSEPR, geometry, hybridization	
15	11/8	Covalent Bonding EXAM. Reaction types with demonstration	Reactions lab
16	11/15	Mole Concept	
17	11/22	Molar mass and calculation, Thanksgiving	
18	11/29	% Composition, Empirical and Molecular formulas	% Comp. Lab
19	12/6	Moles EXAM	
20	12/13	Fall Semester Exam	

Spring Semester (tentative)

	Week of	Lecture	Lab
1	1/3	Mole ratios and Stoichiometry	
2	1/10	Finish stoich,	Stoich lab(fizzy drink)
3	1/17	EXAM Stoichiometry begin redox	
4	1/24	Oxidation Reduction Reactions	
5	1/31	Half reactions, ionic equations	
6	2/7	EXAM Redox Properties of Gases- Pressure, The Gas Laws, the Ideal Gas Law, Gas Density, Dalton's Law, Kinetic-Molecular Theory	Expt 6: Gas production lab H ₂
7	2/14	Properties of Gases continued;	
8	2/21	Properties of Gases continued;	
9	2/28	EXAM Gas Laws	
	3/7	Solution Chemistry – Concentration (molarity and dilution), electrolytes, water, IM Forces, Phase Diagrams	
10	3/14	Rochelle Spring Break	
11	3/21	Solution Chemistry -continued	Expt 7 – Percent in a mixture
12	3/28	EXAM Solutions; Thermochemistry – Energy Systems	
13	4/4	Enthalpy, Hess's Law	
14	4/11	<i>Heat Capacity, calorimetry</i>	Expt 8 - Calorimetry
15	4/18	EXAM Thermochemistry	
16	4/25	Lab Exam	
17	5/2	Semester Exam Review	
18	5/9	Semester Exam	
	5/13	Grades due at Angelo State	

Student Disability Services

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation. The Office of Student Affairs is the designated campus department charged with the responsibility of

reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student's responsibility to initiate such a request by contacting:

Ms. Dallas A. Swafford
Director of Student Disability Services
 325-942-2047
 dallas.swafford@angelo.edu
 Houston Harte University Center

Title IX Statement

Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU's Title IX Coordinator:

Michelle Nicole Boone, J.D.
Director of Title IX Compliance 2
 Michelle.boone@angelo.edu
 325-486-6357
 Mayer Administration Building 204

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Student Conduct Policies

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

Plagiarism

Plagiarism is a serious topic covered in ASU's Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft. In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you

will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

Angelo State University student handbook. <http://www.angelo.edu/student-handbook/>

Angelo State University Catalog at <http://www.angelo.edu/catalogs/>