



Chemistry 1311 and 1111/1312 and 1112:

General Chemistry Syllabus

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Required Supplies

- **Textbook [Required]:**

1. **Steven S. Zumdahl, *Chemistry* (5th Edition)**

- **Lab Notebook**

- **Calculator [Required]: Scientific calculator capable of performing calculations with scientific notation and logarithms. *Bring your calculator to class and to lab every day.***

Only non-programmable calculators may be used on the exams.

Course Description

In this class, you will study the fundamental laws and theories of chemistry, chemical nomenclature, chemical equilibrium, metals and non-metals and their compounds, nuclear chemistry and the quantum theory of structure. Prerequisites: Chemistry 1411 is to be completed before Chemistry 1412. Proficiency in algebra required. Only students eligible to take college-level mathematics courses may take Chemistry 1411.

Grading

1. **Laboratory Notebook**

The laboratory notebook will count 25% of the six weeks grade.

2. **Daily Work**

Homework will be a vital part of this class. Every assignment will be graded and corrected for merit. **NO LATE WORK IS ACCEPTED.**



A. Daily work includes:

1. Homework
2. Class assignments

4. Daily Quizzes

Will be given periodically to check for understanding and mastery of the objectives of this course. At the end of each six weeks, your daily quiz average will be included as one major test.

5. Major Tests

One major test will be given per unit covered.

6. Six Weeks Test

The six weeks test will be comprehensive over the material covered each six weeks.

CALCULATING YOUR SIX WEEKS GRADE:

Daily Work--10%

Lab Book and AP Problems--25%

Unit Tests--65%

Your Final Angelo State University Grade:

The three six weeks grades along with the semester final averaged together create your final semester average for the course.



Timeline:

First 6 weeks:

Unit 1: Chemical Foundations; Atoms, Molecules
And Ions; Stoichiometry

Unit 2: Solution Stoichiometry and Chemical
Analysis

Second 6 weeks:

Unit 3: Electrochemistry

Unit 4: Gas Laws

Unit 5: Thermochemistry

Third 6 weeks:

Unit 6: Atomic Structure and Periodicity

Unit 7: Chemical Bonding

Fourth 6 weeks:

Unit 8: Liquids, Solids,
Solutions and Phase Changes

Unit 9: Chemical Kinetics

Unit 10: Entropy,
Spontaneity and
Free Energy

Fifth 6 weeks:

Unit 11: Chemical
Equilibrium

Unit 12: Acids and Bases

Unit 13: Nuclear Chemistry

Sixth 6 weeks:

Unit 14: Review/Preparation
for AP Exam

Unit 15: Organic Chemistry

Unit 16 Spectrophotometric
Analysis



Main course objectives:

- To develop and enhance students' thinking skills
- To make students become active and independent learners
- Foster students' problem solving skills
- Develop students' hands on skills in chemistry laboratory settings

Instructor's responsibilities:

- Provide a high quality vigorous course and maintain the highest standards of academic integrity
- Challenge students' thinking skills and independent problem solving skills on an ongoing basis
- Let students work out challenging exercises in class in a team setting
- Assist students with problem solving by providing fundamental problem solving strategies
- Be available for students
- Be patient
- Communicate effectively
- Monitor and evaluate students' progress
- Uphold safety standards

Students' responsibilities:

- Be grown professionals
- Be proactive
- Be significantly interested in scientific subjects (be engaged).
- Review and catch up with knowledge that is expected for this class
- Refrain from disruptive and/or disrespectful behavior



- Read chapters in the textbook before they are covered in class
- Do the homework by the due date
- Make use of various resources
- Show academic integrity
- Seek the instructor's assistance and advice
- Communicate with the instructor on an ongoing basis
- Obey safety protocols at all times
- be present on time

NOTE: You must bring a calculator to every class meeting. Cell phones are not permitted (i.e., they must be turned off and not taken out).

Attendance

You are expected to attend all class meetings. You are expected to arrive on time and to stay until the end of the lecture. In-classroom activities such as worksheets and quizzes cannot be made up. You will not be automatically dropped if you stop attending class.

If you have the flu, please stay home. Do not help spread the flu to everyone else. Keep your professor informed as to your status by email (preferred) or telephone (if necessary). Your faculty will work with you to keep up to date in the class.

Last Day to Drop

The last day to drop a class or withdraw from the University for the Regular Fall 2021 Semester is **November 22, 2021**.



Honor Code /Academic Dishonesty

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is to be found in the Student Handbook (www.angelo.edu/cstudent/). The penalty for ANY sort of dishonesty, cheating or plagiarism can range from a grade of zero on the assignment to a F in the course and disciplinary action as warranted in accordance with university guidelines.

Don't even consider it.

Forging signatures

The instructor is required to keep track of the students' class attendance for administrative reasons. Therefore, in each class a sign in sheet will be handed out, which each student will sign with their signature. For the instructor it is of no significance if you miss class. Your grade will be based on your performance considering the course material. Excused and unexcused absences will have no impact on your grade (other than that a large number of absences will most likely naturally diminish your chances of succeeding in this course). Any reproduction of someone else's signature is considered forgery. Forgery is a criminal offense and is punishable by up to a \$500 fine and possible jail time. It is also a violation of the ASU Code of Student Conduct and could result in dismissal, suspension, or expulsion from the University. If one of your fellow students is absent for legitimate reasons do not sign with his or her signature. That is considered forgery and is punishable. You can let the instructor know about that student's absence to be excused. You can also vouch for that student by writing a comment into the sign in sheet that this student's absence is excused, or the student is going to be late, or the student had to leave etc., then sign with your own initials.



Disabilities

Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request and to implement academic accommodations.

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. In some cases, the experiments in the lab will introduce you to concepts *before* you cover them in the lecture course, and in some cases, the experiments will reinforce concepts already covered in the lecture course.

This syllabus is subject to change.

Some general advice:

You will have to solve many mathematical calculations in quizzes, homework problems and exams. In your own interest please write down the general formula for the defined terms first. Then rearrange the formula as needed. Always consider the correct units and cancel them when possible. Follow the procedure the instructor will show you during this course very closely. Do not trust any results that produce units, which do not make sense. If you work sloppily in this respect it will easily cost you one or two grades overall!

To be successful in this course you need to have extended skills in basic math, in particular in solving algebraic problems.



Furthermore, it is of utmost importance that you understand the concepts and principles of the subject matters we examine in class and that you acquire significant problem solving skills that allow you to resolve problems via an independent thinking process as sheer memorization will clearly render you to be unsuccessful in this course.



I _____ have read and understand the requirements for this

Dual Credit General Chemistry course and agree to follow the above classroom procedures.

Signature: _____ Date: _____

Parent signature: _____ Date: _____

Parent or Student Comments: *(If you think there is anything that I need to know to make this a successful school year, please comment below, leave me an e-mail message, or call and schedule a conference.)*