

Syllabus CHEM 1105 --- Elements of Chemistry Laboratory Fall 2019

Faculty Information

Dr. Steven King

Office: CAV 214B

Phone: 486-6625

Email: steven.king@angelo.edu

Office hours: MWF 8:30 am - 9:30 am, TR 8:30 am – 9:30 am

Or by appointment

CHEM 1105 Laboratories

SEC	Days	Time	Instructor	Location
03Z	M	2:00 pm – 3:50 pm	Dr. King	Rooms: 223, 227
04Z	T	2:00 pm – 3:50 pm	Dr. King	Rooms: 223, 227
05Z	W	2:00 pm – 3:50 pm	Dr. King	Rooms: 223, 227
06Z	R	2:00 pm – 3:50 pm	Dr. King	Rooms: 223, 227

Required Supplies

Textbook

Introductory Chemistry A Foundation: 9th Edition

Zumdahl • DeCoste

Scientific Calculator

grading

Each laboratory	Maximum of 100 points
Final grade	Average of all labs

Points Breakdown

A	90 – 100	
B	80 – 89.9	
C	70 – 79.9	
D	60 – 69.9	
F	<60	

Attendance – Effects your final grade

You are expected to attend all laboratory meetings. You are expected to arrive on time and to stay until the end of the laboratory. 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.

DO NOT USE CELL PHONE.

Last Day to Drop

The last day to drop the course with a grade of “W” is Thursday, October 31, 2019.

Blackboard

Grades, information, handouts, homework assignments, and other course documents will be posted on Blackboard. <http://blackboard.angelo.edu> (or access Blackboard from Rampart). Students are expected to check Blackboard daily and will be held responsible for all announcements, assignments posted to Blackboard.

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 found in the Student Handbook (www.angelo.edu/cstudent/ ⁱⁱ). The penalty for **ANY** sort of dishonesty, cheating or plagiarism can range from a grade of zero on assignments to an F in the course and disciplinary action warranted in accordance with university guidelines.

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.

Observances of Religious Holidays

A student who intends to observe a religious holy day should make that intention known **in writing (email)** to me **prior** to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within what the instructor deems a reasonable time after the absence.

Laboratory Course

The laboratory class is designed to illustrate some of the principles involving performing scientific measurements, handling chemicals, and performing chemistry experiments.

Laboratory Manual: None. Experiment handouts will be given out at the beginning of lab. The laboratory class is designed to illustrate some of the principles involving performing scientific measurements, handling chemicals, and performing chemistry experiments.

Laboratory Safety Requirements

Mandatory Laboratory Safety Training and Quiz

[Due by 09/06/19](#)

Login to Blackboard
Choose the course:
"Lab Safety Training"

Under the left hand menu, choose:
"Get Started Here"

There are three sections:

- 1) Welcome to Lab Safety Training --There are your instructions.
- 2) Lab safety training
-- Click on "Lab Safety - Click here to begin"
--This will download a powerpoint slide show which will cover the safety training.
- 3) The lab safety quiz. You must score 90% or higher. You can take it again in 24 hours.

***** YOU WILL NOT BE ALLOWED TO PERFORM LABORATORY EXPERIMENTS UNTIL THIS IS COMPLETED. FAILURE TO FINISH THE TRAINING WILL RESULT IN A GRADE OF ZERO FOR EACH LABORATORY SESSION MISSED.*****

Eyewear: Eyes are extremely vulnerable to tragic and irreversible injuries and **safety goggles** must be worn at all times. This protects the eyes from splashes as well as impact damage.

Laboratory dress code: Skin can be easily harmed and should be covered as much as possible while conducting experiments in the lab. To this end, the following are requirements apply.

- Long sleeve clothing that covers the upper body, arms, and midriff
- Long pants extending to top of shoe
- You may not wear jeans with large holes in them.
- No shorts

No scarves

- Closed toed and closed heel shoes.
- Long hair should be pulled back especially when working with flame or chemicals.
- Failure to follow these guidelines will result in your dismissal from the laboratory and a grade of ZERO for the day.

Required Supplies

Approved safety goggles.

Attendance

You are expected to attend all laboratory meetings. You are expected to arrive on time and to stay until the end of the laboratory experiment is completed. 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 instructor informed by email (preferred) or telephone (if necessary). Your instructor will work with you to make-up labs.

Make-up Labs: Missed labs can be made up with permission of the instructor during a regularly scheduled lab period (see schedule below) and during the same week you missed the lab.

CHEM 1105 Labs Schedule

Labs will begin meeting the first day of class.

Week of	Experiment
Aug 26	Check-in and Safety
Sep 2	NO LAB, Labor Day
Sep 9	Chromatography
Sep 16	Identifying Ions by Flame Tests
Sep 23	O ₂ Demonstration
Sep 30	Iron Lab

Week of	Experiment
Oct 7	Chemical Moles: Soda to Table Salt
Oct 14	Graham's Law
Oct 21	Percent Water in a Hydrate
Oct 28	Solutions Demonstration
Nov 4	Acetic Acid Content of Vinegar
Nov 11	Rates of Chemical Reactions
Nov 18	Slime
Nov 25	NO LAB, Thanksgiving

Student Learning Outcomes

After completion of this course students will be able to:

- Analyze complex problems and draw logical conclusions.
- Employ mathematics in the analysis of chemical problems.
- Apply chemical concepts to contemporary societal problems.

Evaluation of Student Learning Outcomes

Student learning outcomes will be evaluated through written laboratory reports for each of the exercises listed above. No lab grades will be dropped; therefore attendance at all laboratory meetings is essential.

Texas Higher Education Coordinating Board Natural Science Objectives

The objective of the study of a natural sciences component of a core curriculum is to enable the student to understand, construct, and evaluate relationships in the natural sciences, and to enable the student to understand the basis for building and testing theories.

Exemplary Educational Objectives

1. To understand and apply method and appropriate technology to the study of natural sciences.

2. To recognize scientific and quantitative methods and differences between the approaches and other methods of inquiry and to communicate findings, analyses, and interpretations both orally and in writing.
3. To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.

ASU Core Curriculum Objectives for Chemistry 1101

Students in Chemistry 1401 will apply the following core curriculum learning objectives in critical thinking, communications, and teamwork.

Critical thinking will be demonstrated by class performance.

- Students will use their knowledge of chemical concepts to analyze problems related to topics discussed in class and choose the correct course of action to solve the problems.

Communication will be demonstrated by preparing laboratory reports.

- Students will organize and write a report clearly explaining the purpose, procedure, results and conclusion of a laboratory experiment.

Empirical and quantitative skills will be demonstrated by using equations to answer problems.

- Choose the appropriate equation and rearrange to solve for the unknown.
- Complete mathematical operations and report correct answer.

Teamwork will be demonstrated using in-class projects.

- Students will work in groups to complete an assignment and prepare a single report.

Syllabus may be modified at the discretion of the instructor. Timely notification will be announced in class and posted in Blackboard.

ⁱ <http://blackboard.angelo.edu>

ⁱⁱ www.angelo.edu/cstudent/