CHEM 1105
Elements of Chemistry - Lab

Instructor:  Dr. Steven King
Email:  steven.king@angelo.edu
Phone:  486-6625
Office: CAV 214B

Office Hours:  MWF 8:00 am – 9:00 am, TR 8:00 am – 9:00 am
Or by appointment

Course Information

Course Description
Laboratory experiments that focus on laboratory technique, data collection, and analysis. The experiments will expand upon the concepts and topics presented in Chemistry 1305.

Prerequisite and Co-requisite Courses
none

Prerequisite Skills
Accessing Internet websites and using Basic Algebra.

Student Learning Outcomes
Upon completion of this course, students will be able to:
- Analyze experiments results and draw logical conclusions.
- Employ mathematics in the analysis of chemical experiments results.
- Demonstrate teamwork in problem solving.

Course Delivery
This is a laboratory course with learning resources and supplemental materials handed out at the beginning of the laboratory period.

DO NOT USE CELL PHONE DURING CLASS
Required Texts and Materials
Scientific Calculator
Approved safety goggles

Technology Requirements
none

Communication
Email is the preferred form of communication.
I will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Written communication via email: All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to me, include the course name and section number in your subject line.

Grading

Evaluation and Grades
Course grades will be determined as indicated in the table below.

| Completion of Laboratories 13@ 90 points | 1170 points |
| Quizzes 5@ 26 points                    | 130 points  |
| Total points                           | 1300 points |

Grading System
Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.
Final grade = (your points earned/1300 points) x 100

The following grading scale is in use for this course:
A = 90.0-100 points
B = 80.0-89.9 points
C = 70.0-79.9 points
D = 60.0-69.9 points
F = 0-59.9 points
Assignment and Activity Descriptions

Quizzes
The quizzes schedule will be announced the first week of lab.

Laboratory Safety Requirements
*Mandatory Laboratory Safety Training and Quiz*

Due by 01/21/2020

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

<table>
<thead>
<tr>
<th>SEC</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>03Z</td>
<td>W</td>
<td>12:00 pm – 1:50 pm</td>
<td>Dr. King</td>
<td>SCI III, Room 113</td>
</tr>
<tr>
<td>04Z</td>
<td>W</td>
<td>2:00 pm – 3:50 pm</td>
<td>Dr. King</td>
<td>SCI III, Room 113</td>
</tr>
<tr>
<td>05Z</td>
<td>R</td>
<td>12:00 pm – 1:50 pm</td>
<td>Dr. King</td>
<td>SCI III, Room 113</td>
</tr>
<tr>
<td>06Z</td>
<td>R</td>
<td>2:00 pm – 3:50 pm</td>
<td>Dr. King</td>
<td>SCI III, Room 113</td>
</tr>
</tbody>
</table>

Labs will begin meeting the first week of class.
<table>
<thead>
<tr>
<th>Week of</th>
<th>Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 13</td>
<td>1. Check-in and Safety</td>
</tr>
<tr>
<td>Jan 20</td>
<td>No Lab</td>
</tr>
<tr>
<td>Jan 27</td>
<td>2. Chromatography</td>
</tr>
<tr>
<td>Feb 3</td>
<td>3. Identifying Ions by Flame Tests</td>
</tr>
<tr>
<td>Feb 10</td>
<td>Quiz 1, Lab 1 &amp; 2</td>
</tr>
<tr>
<td>Feb 17</td>
<td>4. O₂ Demonstration</td>
</tr>
<tr>
<td>Feb 24</td>
<td>5. Iron Lab</td>
</tr>
<tr>
<td>Feb 24</td>
<td>Quiz 2, Lab 3 &amp; 4</td>
</tr>
<tr>
<td>Mar 2</td>
<td>6. Chemical Moles: Soda to Table Salt</td>
</tr>
<tr>
<td>Mar 9</td>
<td>7. Graham’s Law</td>
</tr>
<tr>
<td>Mar 16</td>
<td>Spring Break</td>
</tr>
<tr>
<td>Mar 16</td>
<td>Quiz 3, Lab 5 &amp; 6</td>
</tr>
<tr>
<td>Mar 23</td>
<td>8. Percent Water in a Hydrate</td>
</tr>
<tr>
<td>Mar 30</td>
<td>9. Solutions Demonstration</td>
</tr>
<tr>
<td>Apr 6</td>
<td>Quiz 4, 7 &amp; 8</td>
</tr>
<tr>
<td>Apr 13</td>
<td>10. Acetic Acid Content of Vinegar</td>
</tr>
<tr>
<td>Apr 20</td>
<td>11. Rates of Chemical Reactions</td>
</tr>
<tr>
<td></td>
<td>12. Slime</td>
</tr>
<tr>
<td></td>
<td>Quiz 5, 9, 10, &amp; 11</td>
</tr>
</tbody>
</table>

**General Policies Related to This Course**

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

- Angelo State University Student Handbook¹
- Angelo State University Catalog²

**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.

The College of Science and Engineering adheres to the university’s Statement of Academic Integrity.³
Accommodations for Students with Disabilities

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.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website.⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu  
Houston Harte University Center, Room 112

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 Procedures⁵ for more information.

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 Day⁶ for more information.

Title IX at Angelo State University

The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination.
including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU’s Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Boone, J.D.
Director of Title IX Compliance/Title IX Coordinator
Mayer Administration Building, Room 210
325-942-2022
michelle.boone@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information about Title IX in general you may visit www.angelo.edu/title-ix.

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

1 https://www.angelo.edu/student-handbook/
2 https://www.angelo.edu/catalogs/
3 https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
4 https://www.angelo.edu/services/disability-services/
5 https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
6 https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of