Course Syllabus  
Fall 2023  
CHEM 1105_520/521  
Introductory Chemistry Lab  
Instructor: Dr. Rashid Mia

**Department:** Chemistry & Biochemistry  
**Desire2Learn:** http://d2l.sfasu.edu  
**Phone:** 936-468-2384  
**Office:** M-117 (Bush Bldg 117)  
**Student Hours: In person:**  
M: 4-5 pm, T: 2-3 pm, W: 9-9:55 am, Th: 10-12 pm, F: 9-9:30 am, or by appointment only. Zoom meeting during office hour only upon request.  
Zoom: Passcode: 840415  
Meeting ID: 910 5359 2556

**Text and Materials:**  
Stephen F. Austin State University CHEM 1105 Online Lab Manual available to buy in Chemistry department, email at kwiatkowc@sfasu.edu.  
Internet access to conduct virtual lab simulations using free software by following CHEM 1105 lab manual.

**Course Description:** Introductory Laboratory – Introductory laboratory experiments

**Number of Credit Hours:** 1 semester hour

**Course Prerequisites and Corequisites:** Corequisite: CHE 1305

**Program Learning Outcomes:** There are no specific program learning outcomes for this major addressed in this course. This course is a general education core curriculum course.

**General Education Core Curriculum Objectives:** The Texas Higher Education Coordinating Board has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives. Chemistry core courses only develop the first four core-learning objectives: critical thinking, communication, empirical and quantitative, teamwork.

**Course Objective:** The student will develop an understanding of the basic concepts, laws and theories of chemistry and apply them to chemistry problems through a laboratory setting. The student should learn the skills needed to demonstrate competency in introductory chemistry laboratory techniques.

**Student Learning Outcomes:** Upon completion of this course, the students are expected to  
- apply chemistry concepts using critical thinking skills and the scientific method to analyze and evaluate information to reach conclusions within problem sets and lab experiments. (COs 1 & 3)  
- use communication skills to demonstrate their interpretation and analysis of scientific data and express their ideas and thoughts. (CO 2)
• apply logic, quantitative reasoning, and pattern recognition to analyze and evaluate numerical data/observable facts to reach conclusions within problem sets and lab experiments. (COs 1 & 3)

• demonstrate the ability to cooperate within groups to gather results of an experiment, analyze data, and draw conclusions using communication skills. (COs 2 & 4)

Outline of Topics (approximate course time):
Safety and Introduction to Chemistry Lab (9%)
Significant Figures (9%)
Endothermic, Exothermic, Heat of Reaction (9%)
Specific Heat, Heat of Combustion (9%)
Counting Atoms and Molecules (9%)
Gas Evolution, Precipitation (9%)
Atomic Emission Spectra (9%)
PhET lab: Lewis Dot Structures and VSEPR Theory (9%)
Creating a Solution of Known Molarity, Acid-base Standardization (10%)
Boyle, Charles, Avogadro’s Laws (9%)
Ideal Gas Law (9%)

Course Requirements:
Prelab quizzes (100 pts per lab) over the material for each lab. These quizzes will be due each Friday (see calendar below) by 11:59pm in D2L.

Postlab dropbox (100 pts per lab) of data and questions over the lab as indicated in lab manual. This information will be due each Wednesday (see calendar below) by 11:59pm in D2L.

Mid-term Exam – comprehensive exam over lab experiments 1 through 6 worth 100 pts. Mid-term exam will be available in D2L between Oct 12 to Oct 18 at 11:59pm. Exam must be completed within 2 hours of opening the exam between the open dates.

Final Exam – comprehensive exam over lab experiments 7 through 11 worth 50 pts. Final exam will be available in D2L between Dec 6 to Dec 13 at 11:59pm. Exam must be completed within 2 hours of opening the exam between the open dates.

Method of Evaluation: The final grade will be based on a weighted average.

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<tbody>
<tr>
<td>Prelabs</td>
<td>40%</td>
</tr>
<tr>
<td>Lab Reports</td>
<td>45%</td>
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<tr>
<td>(note: Lab 2 second quiz is postlab assignment)</td>
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<tr>
<td>Mid-term</td>
<td>7.5%</td>
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<tr>
<td>Final</td>
<td>7.5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
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Grading scale - A= 90 - 100%; B= 80 - 89%; C= 70 - 79%; D= 60 - 69%; F= below 60%

Excuses Absence Policy

SFASU made changes to faculty notification requests, formerly known as "Absence Notifications" for students, that became effective Aug. 1. Below, you will find the process in
which students can submit absences and how the **Dean of Students Office** will handle these requests moving forward.

**Purpose:** This serves to formalize a process for student absences that meets requirements set forth by the institution and supports students who may have missed classes for specified reasons.

Qualifying reasons are unplanned absences that have impacted a student's ability to attend class. **This must be submitted no later than 10 business days after the incident.** Qualifying reasons will fall into the following four categories:

- Death of family member*
- Hospitalization - admitted into the hospital for health purposes (medical or mental)
- Personal emergency - this can include car accidents or drastic life events, such as a fire*
- Administrative and other - this can include jury duty, court subpoena, etc.

*Other situations may be considered at the discretion of the Dean of Students Office.

Additionally, requests must be accompanied with appropriate documentation, which includes, but is not limited to death certificates, obituaries/programs (with listed name), medical discharge documents, a subpoena, a jury summons, or a police report from an accident.

Some reasons for being denied a faculty notification request may include, but are not limited to illness, traffic court, oversleeping, physician's appointment, car trouble, or an emergency room visit (non-admittance).

**PROCESS:**

1. Students are responsible for submitting faculty notification requests and providing supporting documentation substantiating the reason for requests. **Requests with no supporting documentation will automatically be denied.**
2. SFA's Student Outreach and Support will review documentation and assess validity. Upon review, SOS will determine the approval or denial of the faculty notification request.
3. SOS will notify students of the faculty notification request determination and will notify faculty members only of approved faculty notification requests.
4. It is the student's responsibility to provide approved faculty notification requests to faculty members. Additionally, it is at the faculty member's discretion to honor approved circumstantial requests.

**COURSE CALENDAR:**

This lab course is for 1 credit and typically requires 120 minutes a week for 15 weeks. Students have weekly reading and videos to prepare for lab each week and lab reports involving critical thinking and quantitative reasoning. Students are tested over the material via quizzes and exams. Students are expected to prepare prior to each lab (literature and concepts), conduct experiments, and report results (lab reports). Students have required academic components and deliverables: written work (pre-lab assessments, quizzes, and lab reports). These activities, inclusive of the lab expectations and academic components, average a minimum of 4 hours of work each week.

**Note:** All prelab (quiz) and post lab (dropout: data & questions) are due by 11:59pm of due date. Exams must be completed within 2 hrs of opening the exam between the open dates.
## CHEM1105 – Calendar

<table>
<thead>
<tr>
<th>Lab</th>
<th>Video</th>
<th>Prelab Due</th>
<th>Lab Report Due</th>
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<tbody>
<tr>
<td><strong>1. Safety and an Introduction to Chemistry Lab</strong></td>
<td><a href="https://www.youtube.com/watch?v=9o77QEeM-68&amp;t=1704s">https://www.youtube.com/watch?v=9o77QEeM-68&amp;t=1704s</a></td>
<td>Sept 1</td>
<td>Sept 6</td>
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<tr>
<td><strong>2. Significant Figures</strong></td>
<td>No video</td>
<td>Sept 8</td>
<td>Sept 13</td>
</tr>
<tr>
<td><strong>3. VCL 3-1 and 3-10</strong></td>
<td>3-1 and 3-10 with Introduction <a href="https://youtu.be/PSKAUoBiUgs">https://youtu.be/PSKAUoBiUgs</a></td>
<td>Sept 15</td>
<td>Sept 20</td>
</tr>
<tr>
<td><strong>4. VCL 3-3 and 3-7</strong></td>
<td>3-3 and 3-7 with introduction <a href="https://youtu.be/9RC_LKAMVY">https://youtu.be/9RC_LKAMVY</a></td>
<td>Sept 22</td>
<td>Sept 27</td>
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<tr>
<td><strong>5. VCL 2-7 and 2-9</strong></td>
<td>2-7 and 2-9 with Introduction <a href="https://youtu.be/qC7P-1-UVCQ">https://youtu.be/qC7P-1-UVCQ</a></td>
<td>Sept 29</td>
<td>Oct 4</td>
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**Midterm**  
Opens Oct 12  
Closes Oct 18  
*Good luck!*

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<tr>
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<th>Lab Report Due</th>
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<tr>
<td><strong>8. PhET Lab</strong></td>
<td>PhET Lab with Introduction: <a href="https://youtu.be/hJtbfTDTANs">https://youtu.be/hJtbfTDTANs</a></td>
<td>Oct 27</td>
<td>Nov 1</td>
</tr>
<tr>
<td><strong>9. VCL 2-13 and 6-15</strong></td>
<td>2-13 and 6-15 with Introduction: <a href="https://youtu.be/6TBKVeiKKLU">https://youtu.be/6TBKVeiKKLU</a></td>
<td>Nov 3</td>
<td>Nov 8</td>
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<tr>
<td><strong>10. VCL 5-1, 5-2, 5-3</strong></td>
<td>5-1, 5-2, 5-3 Tour (no introduction) <a href="https://youtu.be/eSzktchisqU">https://youtu.be/eSzktchisqU</a></td>
<td>Nov 10</td>
<td>Nov 15</td>
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<tr>
<td><strong>11. Hands-on Activity Ideal Gas Law</strong></td>
<td>No video</td>
<td>Dec 1</td>
<td>Nov 6</td>
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**Final Exam**  
Opens Dec 6  
Due Dec 13  
*Good luck!*

### ATTENDANCE POLICY:

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This course is online meaning there are no required face-to-face meetings. The assignments and exams will be due during the assigned times unless other arrangements are approved by the instructor prior to the due date. There are no make-up activities for notifications given the day of the activity.

**CODE OF STUDENT CONDUCT AND ACADEMIC INTEGRITY (10.4):**

The Code of Student Conduct and Academic Integrity outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially.

Any student found cheating will be subject to the penalties as stated in the Student Code of Conduct handbook; including but not limited to a score of zero on exam, expulsion from the class or expulsion from the University.

**WITHHELD GRADES SEMESTER GRADES POLICY (5.5):**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of
computing the grade point average. For additional information, go to https://www.sfasu.edu/policies/course-grades-5.5.pdf.

The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

**STUDENTS WITH DISABILITIES:**
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

**STUDENT WELLNESS AND WELL-BEING:**
SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

**ON-CAMPUS RESOURCES:**
The Dean of Students Office (Rusk Building, 3rd floor lobby)
www.sfasu.edu/deanofstudents
936.468.7249
dos@sfasu.edu

SFA Human Services Counseling Clinic Human Services, Room 202
www.sfasu.edu/humanservices/139.asp
936.468.1041

The Health and Wellness Hub “The Hub”
Location: corner of E. College and Raguet St.

To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:

- Health Services
- Counseling Services
- Student Outreach and Support
- Food Pantry
- Wellness Coaching
- Alcohol and Other Drug Education
CRISIS RESOURCES:

- Burke 24-hour crisis line: 1.800.392.8343
- National Suicide Crisis Prevention: 9-8-8
- Suicide Prevention Lifeline: 1.800.273.TALK (8255)
- johCrisis Text Line: Text HELLO to 741-741