Name: Dr. Alyx S. Frantzen  
Department: Chemistry  
Email: afrantzen@sfasu.edu  
Website: www.faculty.sfasu.edu/  
Phone: (936) 468-2338  
Office: NM 119  
Office Hours: M and R, 10:00-11:00am; other times by appointment;  
ZOOM information (for Office Hours): https://sfasu.zoom.us/j/9734125921?pwd=ME11NEdNWUFOdVJCb2VILzVBaVRldz09  
Meeting ID: 973 412 5921  
Passcode: 382230  
Class meeting time and place: online

Text and Materials:  
Mastering Chemistry, Pearson, online homework (you will access this through Brightspace/D2L). Calculator with scientific notation.

COURSE CALENDAR:  
Material will be covered in the following section order with approximate class time. Exam schedule is tentative.

1. Matter and Measurement (1 lecture)  
2. Atoms, Elements, Molecules, Ions, and Compounds (1.5 lectures)  
3. Chemical Formulas and Equations (1.5 lectures)  
4. Chemical Reactions (2 lectures)  
5. Gases (2 lectures)  
6. Thermochemistry (1 lecture)  
7. Electronic Structure (2 lectures)  
8. Periodic Properties of the Elements (1 lecture)  
9. Basic Concepts of Chemical Bonding (2 lectures)  
10. Molecular Geometry and Bonding Theory (2 lectures)  
11. Liquids and Intermolecular Forces (1 lecture)  
12. Solids and Modern Materials (1 lecture)  
13. Properties of Solutions (1 lecture)  

Comprehensive Final - Friday, June 25, 2021, online.
GRADING POLICY:

4-semester exams (100 points per exam): We will be taking exams on Mondays (on-line). The on-line exam will be multiple choice utilizing Mastering Chemistry. The final will be on June 25, 2021, and will also be online.
Final Exam (100 points): Online Mastering Chemistry
Homework (100 points): I will be assigning homework utilizing Mastering Chemistry. You must subscribe to finish the homework and exams.

Method of Evaluation: The final grade will be based upon percentage of points obtained in the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>exam 1</td>
<td>100 pts</td>
</tr>
<tr>
<td>exam 2</td>
<td>100 pts</td>
</tr>
<tr>
<td>exam 3</td>
<td>100 pts</td>
</tr>
<tr>
<td>exam 4</td>
<td>100 pts</td>
</tr>
<tr>
<td>final exam</td>
<td>100 pts</td>
</tr>
<tr>
<td>homework</td>
<td>100 pts</td>
</tr>
<tr>
<td>Total</td>
<td>600 pts</td>
</tr>
</tbody>
</table>

Grading scale - A= 90 - 100%; B= 80 - 89%; C= 70 - 79%; D= 60 - 69%; F= below 60%

ATTENDANCE POLICY:
You must keep up with the material. You will find a more detailed schedule on D2L for the semester. The lectures have been posted already and you are more than welcome to advance through them as quickly as you want. The exams will be given as posted on the Course Calendar. There will be no make-up exams. The final day to withdraw from the class without a WP or WF is June 20, 2021.

ACADEMIC INTEGRITY (A-9.1):
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)

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 (A-54):
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.

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/.

CLASSROOM BEHAVIOR POLICY:
To ensure a classroom environment conducive to learning, any forms of classroom disruptions will not be tolerated (examples but not limited to – talking, use of cell phones/beepers, sleeping, reading other material, eating/drinking). Students who violate these rules will be asked to leave. Repeat offenders will be subject to disciplinary action in accordance with University policies as described in the Code of Student Conduct.

ONLINE:
Make sure you are checking your email regularly. I will be communicating through D2L and using that email. I will also be posting regular announcements to the Home Page of D2L. Make sure that you get your Mastering Chemistry account set up. It is very important, as that is how I will be giving exams. Please try to get Mastering set up as quickly as possible and if you have any problems, contact me and lets try to get it fixed. It is very important that you go through MyLab and Mastering. If you use the regular Mastering Chemistry, it takes you to a different server and it is difficult to get back and forth between them. I have posted instructions on D2L for Mastering. Make sure that when you take the exam, you are in a place with good internet and that you are ready to take the exam. These will be timed exams, so once you begin, you must finish. If you take a break, you can time out. Your first exam will be May 24th, so please make sure you have your Mastering Account all set up and you are ready to go.
SFASU values students’ mental health and the role it plays in academic and overall student success. 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:**
SFASU Counseling Services  
www.sfasu.edu/counselingservices  
3rd Floor Rusk Building  
936-468-2401

SFASU Human Services Counseling Clinic  
www.sfasu.edu/humanservices/139.asp  
Human Services Room 202  
936-468-1041

**Crisis Resources:**
Burke 24-hour crisis line 1(800) 392-8343  
Suicide Prevention Lifeline 1(800) 273-TALK (8255)  
Crisis Text Line: Text HELLO to 741-741
Course Syllabus  
Chemistry 1311  
General Chemistry I

**Course Description:** Atomic and molecular structures, stoichiometry, gas laws and thermodynamics.

**Number of Credit Hours:** 3 semester hours - 3 hours lecture per week

**Course Prerequisites and Corequisites:** Corequisite: CHEM 1311.

**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 and a service course.

**General Education Core Curriculum**

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. General Chemistry is a general education core curriculum course and fulfills the Teamwork general education core curriculum requirement. Another, “shell” course has been created to collect student artifacts to meet this state requirement. You will see this course on your D2L list. During this semester, you will receive an assignment in the laboratory portion of the course that fulfills both the requirements of the lab and the needs of Stephen F. Austin State University’s Core Curriculum Assessment Plan with the Texas Higher Education Coordinating Board. When you complete this one assignment, you need to upload the assignment to both the General Chemistry dropbox and the Teamwork dropbox. Please note that this only applies to the specific assignment listed in the matrix below. All other assignments should be submitted according to regular class operations. If you have any questions, please see your instructor or contact the University Assessment Specialist at (936) 468-1267 or jstringfield@sfasu.edu.

The chart below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course and uploaded to the D2L Teamwork dropbox this semester, and the date the assignment(s) should be uploaded to the D2L Teamwork dropbox. Not every assignment will be submitted for core assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in the D2L Teamwork dropbox.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Topics</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO 1 -- Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</td>
<td>Classification of Reactions, Solubility Rules, Limiting Reactant, Lewis Diagrams, Valence Shell Electron Pair Repulsion Theory</td>
<td>3, 4, 8, 9</td>
</tr>
<tr>
<td>CO 2 -- Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas though</td>
<td>Developed in Laboratory, recitation</td>
<td></td>
</tr>
</tbody>
</table>
written, oral, and visual communication.

<table>
<thead>
<tr>
<th>CO 3 -- Empirical and Quantitative Skills</th>
<th>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</th>
<th>Stoichiometry, Significant Figures, Thermodynamics, Gas Laws</th>
<th>1, 3, 5, 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO 4 -- Teamwork</td>
<td>To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</td>
<td>Developed in Laboratory</td>
<td>See lab syllabus</td>
</tr>
</tbody>
</table>

**Course Objective:** To provide students with an explanation of the basic concepts of chemistry and to apply these concepts to problem solving involving critical thinking.

**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 to team members. (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)

**Hour Justification:** This course is for 3 credits and spans 6 weeks. The course contains extensive content requiring students to prepare by completing the assigned weekly reading, homework, online content, etc. Students have significant weekly reading and homework assignments involving critical thinking and quantitative reasoning. Students are tested over the material via several exams during the semester including a comprehensive final exam. These activities average at a minimum 8 hours of work each week to prepare outside of time spent engaging with the content.

**Outline of Topics (approximate course time):**
Chemistry and Measurement (5-15%)
Atoms, Elements, Molecules, Ions, and Compounds (5-15%)
Chemical Formulas and Equations (5-15%)
Chemical Reactions (5-15%)
Gases (5-15%)
Thermochemistry (5-15%)
Quantum Theory of the Atom (5-15%)
Periodic Properties of the Elements (5-15%)
Chemical Bonding – Lewis Structures (5-15%)
Molecular Geometry and Bonding Theory (5-15%)
Liquids, Solids, and Intermolecular Forces (5-15%)
Solutions (5-15%)