General Chemistry I Laboratory Honors
CHEM 1111
Fall, 2023

Instructor: Dr. B. M. Barngrover
Office: M 124
Phone: (936) 468-1568 e-mail: barngrovbm@sfasu.edu
Class Hours: TR 9:30-10:45 AM; TR 11-12:15 PM; T 2-5 PM; W 12-3 PM
Student Hours: MWF 10-11 AM; M 2:00-4:00 PM; other times by appointment

CATALOG DESCRIPTION: Laboratory techniques and applications. Spectroscopy, quantitative experiments.

PREREQUISITES: MATH 1314 or MATH 1324

CO-REQUISITES: CHEM 1311

COURSE CONTACT HOURS AND STUDY HOURS: This course is for 1 credits and spans 16 weeks. The course contains virtual experiments and ‘in-person’ experiments. Each assignment consists of data collection, data manipulations, and assignments which must be completed by the end of each week. These activities average at a minimum 3 hours of work each week to prepare outside of time spent engaging with the content.

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. The chart below indicates the core objectives addressed by this course.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in LiveText</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></td>
<td>Not assessed in this course</td>
</tr>
<tr>
<td>CO 2 - Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas though written, oral, and visual communication.</td>
<td></td>
<td>Not assessed in this course</td>
</tr>
<tr>
<td>CO 3 - Empirical and Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</td>
<td></td>
<td>Not assessed in this course</td>
</tr>
<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>Assessed in lab</td>
<td>See lab syllabus</td>
</tr>
<tr>
<td>CO 5 - Personal Responsibility</td>
<td>To include the ability to connect choices, actions and consequences to ethical decision-making.</td>
<td></td>
<td>Not assessed in this course</td>
</tr>
</tbody>
</table>
**CO 6 - Social Responsibility**
To include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

**Not assessed in this course**

**REQUIRED TEXTS AND OTHER MATERIALS:** All required material will be posted on D2L.
Scientific Calculator


**COURSE GOALS:** The student should learn basic laboratory techniques and be able to apply them in a practical chemistry setting. Students will also be exposed to basic laboratory skills via a Virtual Laboratory. Data will be collected and analyzed.

**STUDENT OUTCOME OBJECTIVES:**
Upon completion of this course students will:
- Understand and apply method and appropriate technology to the study of natural sciences.
- Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
- Demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
- Demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

**COURSE REQUIREMENTS:** Grading is on a 200 point scale. Each assignment experiment counts 15 points. The 2 lowest grades will be dropped. The final exam is worth 50 points. The final exam will be given on D2L during dead week. Failure to take the final will result in a failing grade for the course.

**COURSE CONTENT:** Please see attached schedule

**METHOD OF EVALUATION:**
Grading scale - A ≥ 180; B ≥ 160; C ≥ 140; D ≥ 120; F = below 120

**MAKE-UP/ATTENDANCE POLICY:** There will be no make-ups in this class. You need to make sure you are keeping up with the assignments and completing them by the due dates.

**SEMESTER WITHDRAWALS:** Last day to withdraw from the course without obtaining a WH grade is Dec. 5th.

**Academic Integrity:**
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

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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.

**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 coursework 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 to compute the grade point average. For additional information, go to https://www.sfasu.edu/policies/course-grades-5.5.pdf.

**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 promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

**Educator Preparation:**
This course meets educator preparation standards for one or more certification programs; a complete listing of all the educator preparation standards this course meets can be found at: https://sfasu.edu/docs/jacksteach/jacksteach-standards-alignment-chart.xlsx

**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
www.sfasu.edu/thehub
936.468.4008
thehub@sfasu.edu

**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

Instructor reserves the right to change the syllabus at any time.
### COURSE CONTENT:

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>August</td>
<td>29</td>
<td><strong>No Lab</strong></td>
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<tr>
<td>September</td>
<td>5</td>
<td>Module 1: Significant Figures 1 (Due 09/08/23 by 11:59pm)</td>
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<td></td>
<td>12</td>
<td>Module 2: Dimensional Analysis (Due 09/15/23 by 11:59pm)</td>
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<td></td>
<td></td>
<td>Check in</td>
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<tr>
<td></td>
<td>19</td>
<td>Experiment #1 Unknown Liquid (Due 09/22/23 by 11:59pm)</td>
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<td></td>
<td>26</td>
<td>Experiment #2 Unknown Liquid II (Due 09/29/23 by 11:59pm)</td>
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<tr>
<td>October</td>
<td>3</td>
<td>Experiment #3 Separations (Due 10/6/23 by 11:59pm)</td>
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<tr>
<td></td>
<td>10</td>
<td>Module 3: Nomenclature (Due 10/13/23 by 11:59pm)</td>
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<td></td>
<td>17</td>
<td>Experiment #4 Formula of a Hydrate (Due 10/20/23 by 11:59pm)</td>
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<tr>
<td></td>
<td>24</td>
<td>Experiment #5 Precipitation Reactions (Due 10/27/23 by 11:59pm)</td>
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<tr>
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<td>31</td>
<td>Experiment #6 Titration 1 (Due 11/3/23 by 11:59pm)</td>
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<tr>
<td>November</td>
<td>7</td>
<td>Experiment #7 Titration 2 (Due 11/10/23 by 11:59pm)</td>
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<td>14</td>
<td>Experiment #8 Salvaging Metals (Due 11/17/23 by 11:59pm)</td>
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<td>21</td>
<td><strong>Thanksgiving Break</strong></td>
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<tr>
<td></td>
<td>28</td>
<td>Experiment #9 Foods as Fuel (Due 12/1/23 by 11:59pm)</td>
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<tr>
<td></td>
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<td>Check Out</td>
</tr>
<tr>
<td>December</td>
<td>5</td>
<td>Final Exam</td>
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<tr>
<td></td>
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<td><strong>Last Day to Withdraw without WH (12/5/23)</strong></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Final Exam Week <strong>No assignments</strong></td>
</tr>
</tbody>
</table>