

# **Master Course Syllabus**

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: https://catalog.uvu.edu/

Semester: Spring Year: 2025

Course Prefix: CHEM Course and Section #: 1115-801

**Course Title:** Elementary Chemistry Laboratory **Credits:** 1

### Course Description

This is an introductory chemistry lab designed to accompany Elementary Chemistry for the Health Sciences (1110). The course is designed for students pursuing a career in the health sciences. Use of laboratory equipment and general laboratory techniques will be taught. Inorganic laboratory techniques will be introduced such as density, precipitation, determination of empirical formulas, gas laws and acid-base reactions.

Prerequisites for this course are MATH 1010 and either CHEM 1010 or CHEM 1110, or concurrent enrollment in either of these courses.

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This course has the following attributes:	
☐ General Education Requirements	
☐ Global/Intercultural Graduation Requirements	
☐ Writing Enriched Graduation Requirements	
☐ Discipline Core Requirements in Program	
☐ Elective Core Requirements in Program	
☐ Open Elective	
Other: Click here to enter text.	

## **Instructor Information**

**Instructor Name:** Lilia White

## **Student Learning Outcomes**

Upon successful completion of this course, students should be able to ....

- 1. Practice proper chemical safety procedures within the laboratory.
- 2. Measure chemicals properly, safely, and accurately, with proper application of significant figures.
- 3. Safely operating equipment and instruments with the laboratory.
- 4. Conduct experiments covering the nature of matter, chemical processes, and chemical stoichiometry.
- 5. Prepare reports interpreting the results of these experiments using standard formants.

### Course Materials and Texts

- 1. Students shall have access to CANVAS to obtain class announcements and laboratory handouts, plus the following materials.
- 2. Lab Book: Experiment protocols and readings are available on Canvas. You are responsible for printing them out and bringing them to class each week.
- 3. Calculator: No specific model recommended; however, it should have memory and scientific notation capability.
- 4. Safety Glasses: Must meet OSHA requirements for chemical splash protection (goggles with polycarbonate lenses with no direct air venting).

## Course Requirements

### Course Assignments, Assessments, and Grading Policy

Graded content:

Pre-Labs	12%
Post-Labs	12%
Data sheets	40%
Dimensional Analysis Problem Sets	9%
Lab Summaries and Quizzes	18%
Final Exam	9%

#### **Grade Percent**

A 93-100

A- 90-92

B+ 87-89

B 83-86

B- 80-82

C+ 77-79

C 73-76

C- 70-72

D+ 67-69

D 63-66

D- 60-62

E <60

### **Required or Recommended Reading Assignments**

Lab Book: Experiment protocols and readings are available on Canvas. You are responsible for printing them out and bringing them to class each week.

### General Description of the Subject Matter of Each Lecture or Discussion

List of experiments:

**Dimensional Analysis** 

Safety

Observing signs of a Chemical Reaction

Determining Density
Double replacement reactions
Determining the empirical formula of Magnesium Oxide
The VSEPR molecular model
Gas Law I - Determining the molar mass of butane
Gas Law II - Mass-Volume Relationships
Introducing Equilibrium
Titrating Acetic Acid in vinegar

## Required Course Syllabus Statements

#### **Generative AI**

AI tools, like ChatGPT, can be useful learning resources. You may use AI to help you better understand the concepts studied in this course. However, always keep in mind that the information generated by AI may be inaccurate and incomplete. You will need to always question the information and the source of information. It is exclusively your responsibility to ensure the accuracy of any information obtained from ChatGPT.

You may not submit any work generated by any AI programs as your own. Failure to do so is in violation of the UVU academic honesty policies.

Using	Remote	<b>Testing</b>	Software
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## Required University Syllabus Statements

#### Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU <u>Accessibility Services</u> at <u>accessibilityservices@uvu.edu</u> or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

### **Academic Integrity**

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their <u>rights and responsibilities</u>. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in <u>UVU Policy 541: Student Code of Conduct</u>.

#### **Equity and Title IX**

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – <u>TitleIX@uvu.edu</u> – 800 W University Pkwy, Orem, 84058, Suite BA 203.

#### **Religious Accommodation**

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at <a href="mailto:accessibilityservices@uvu.edu">accessibilityservices@uvu.edu</a>. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a <u>specially dedicated</u> <u>space</u> for meditation, prayer, reflection, or other forms of religious expression.