



Master Course Syllabus

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

Semester: Spring

Course Prefix: CHEM

Course Title: Elementary Chemistry for the Health Sciences

Year: 2025

Course and Section #: 1110-005

Credits: 4

Course Description

Introduces the fundamentals of chemistry to students in the health sciences. Covers chemical measurements and calculations, atomic structure, chemical bonding, chemical reactions, states of matter, solutions, chemical equilibrium, acid-base systems, and introduces organic chemistry.

Course Attributes

This course has the following attributes:

- General Education Requirement
- Global/Intercultural Graduation Requirement
- Writing Enriched Graduation Requirement
- Discipline Core Requirements in Program
- Elective Core Requirements in Program
- Open Elective

Other: *Click here to enter text.*

Instructor Information

Instructor Name: Dr. Craig Thulin

Student Learning Outcomes

Upon successful completion of this course, students will be able to understand and answer qualitative and quantitative questions in the following topics:

- Discuss the different states of matter, and the relationship between matter and energy
 - Identify the elements and chemical compounds by names and symbols
 - Solve stoichiometry problems to identify different chemical balance and reaction types
 - Solve chemistry problems using units in calculations
 - Identify the internal structure of the atom and its relationship to radioactivity
 - Discuss the basic structure of molecules and how the structure affects chemical reactions
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Course Materials and Texts

1. General, Organic, and Biological Chemistry, 7th edition, by H. Stephen Stoker.
2. Laptop with webcam and microphone
3. Internet Access

4. Scientific Calculator

Course Requirements

Course Assignments, Assessments, and Grading Policy

- ChemTutor Lectures based each Chapter (15% of overall grade)
 - Weekly Homework Quizzes based on end of chapter problems (15% of overall grade)
 - Weekly Assignments based on concepts from the chapter (15% of overall grade)
 - Four exams that cover multiple chapters (44% of overall grade)
 - Final Comprehensive Exam (11% of overall grade)
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Required or Recommended Reading Assignments

- Stoker textbook: Ch 1 – 11
 - eChapter (provided): Introduction to Organic Chemistry
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General Description of the Subject Matter of Each Lecture or Discussion

- Chapter 1: Basic Concepts About Matter
- Chapter 2: Measurements in Chemistry
- Chapter 3: Atomic Structure and the Periodic Table
- Chapter 4: Chemical Bonding: The Ionic Bond Model
- Exam 1: Exam covering Chapters 1 - 4
- Chapter 5: Chemical Bonding: The Covalent Bond Model
- Chapter 6: Reactions and Chemical Calculations
- Chapter 7: States of Matter: Gases, Liquids, and Solids
- Exam 2: Exam covering Chapters 5 - 7
- Chapter 8: Solutions
- Chapter 9: Chemical Reactions
- Exam 3: Exam covering Chapters 8 - 9
- Chapter 10: Acids, Bases and Salts
- Chapter 11: Nuclear Chemistry
- Exam 4: Exam covering Chapters 10 - 11
- eChapter: Introduction to Organic Chemistry
- Final Comprehensive Exam

The Final grade percentage is rounded to the nearest tenth and assigned the corresponding letter grade:

- A = 93.0 -100
- A - = 90.0 - 92.9
- B+ = 87.0 - 89.9
- B = 83.0 - 86.9
- B - = 80.0 - 82.9
- C+ = 77.0 - 79.9
- C = 73.0 - 76.9
- C - = 70.0 - 72.9
- D+ = 67.0 - 69.9
- D = 63.0 - 66.9

D - = 60.0 - 62.9

F = 0-59.9

Required Course Syllabus Statements

Generative AI

This course requires you to complete assignments that assess your understanding, application, and problem-solving ability applied to chemistry. You are expected to do your own work. Problem solving and scientific thinking are tools that are necessary for students to learn in this course. The use of artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, is strictly prohibited for any part of your assignments. Using these tools will be considered academic dishonesty and will be handled according to the university's academic honesty policy. If you have questions about acceptable use of AI tools, please consult the instructor before submitting your work.

Using Remote Testing Software

This course does not use remote testing software.

This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Americans with Disabilities Act and Section 504 of the Rehabilitation Act

The Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, as amended, prohibit Utah Valley University from engaging in discrimination on the basis of disability in any program or activity. Discrimination is also prohibited in all aspects of employment against persons with disabilities who, with reasonable accommodation, can perform the essential functions of a job. Students who believe they have been denied program access or otherwise discriminated against because of a disability are encouraged to initiate a grievance by contacting the Accessibility Services Director, Sherry Page at 801-863-8747. Employees can contact the ADA Coordinator, Cameron Evans at 801-863-8389.

Upon request, this information is available in alternative formats, such as mp3, Braille, or large print. To request this format, email asd@uvu.edu.

Accessibility Services Statement

Students needing accommodation due to a disability including temporary and pregnancy accommodations may contact the UVU Accessibility Services at accessibilityservices@uvu.edu or 801-863-8747. Accessibility Services is located on the Orem Campus in LC 312.

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 rights and responsibilities [rights and responsibilities](#). 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 UVU Policy 541: Student Code of Conduct [student code of conduct](#).

Equity and Title IX

Title IX states that no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Students who believe they have been excluded from participation in, denied the benefits of, or discriminated against because of their sex may contact the EO/AA office to make a report, ask questions, or share concerns by email at: titleix@uvu.edu, in-person at BA-203, or by phone at: (801) 863-7999. To learn more about the Equity and Title IX office please visit us online at: <https://www.uvu.edu/equityandtitleix/>

Religious Accommodation

UVU values and acknowledges a wide range of faiths and religions as part of our student body, and as such provides accommodations for students. Religious belief includes the student's faith or conscience as well as the student's participation in an organized activity conducted under the auspices of the student's religious tradition or religious organization. The accommodations include reasonable student absences from scheduled examinations or academic requirements if they create an undue hardship for sincerely held religious beliefs. For this to occur, the student must provide a written notice to the instructor of the course for which the student seeks said accommodation prior to the event.

The UVU campus has a place for meditation, prayer, reflection, or other forms of individual religious expression [reflection center](#) as is described on their website.