



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 #: 1110-003

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: Craig Moore, MBA

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

- Class Participation (10% of Overall Grade)
 - Weekly Homework Quizzes based on end of chapter problems (35% of overall grade)
 - Four exams that cover multiple chapters (35% of overall grade)
 - Final Comprehensive Exam (20% of overall grade)
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Required or Recommended Reading Assignments

- Stoker textbook: Ch 1 – 11
 - Introduction to Organic Chemistry: Selected sections from Chapters 12 – 17 of Stoker textbook
 - Introduction to Biochemistry: Selected section from Chapter 18 – 22 of Stoker textbook
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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
- Exam 1: Exam covering Chapters 1 & 2
- Chapter 3: Atomic Structure and the Periodic Table
- Chapter 4: Chemical Bonding: The Ionic Bond Model
- Chapter 5: Chemical Bonding: The Covalent Bond Model
- Exam 2: Exam covering Chapters 3 - 5
- Chapter 6: Reactions and Chemical Calculations
- Chapter 7: States of Matter: Gases, Liquids, and Solids
- Chapter 8: Solutions
- Exam 3: Exam covering Chapters 6 - 8
- Chapter 9: Chemical Reactions
- Chapter 10: Acids, Bases and Salts
- Chapter 11: Nuclear Chemistry
- Exam 4: Exam covering Chapters 9 - 11
- Introduction to Organic Chemistry: Selected sections from Chapters 12 – 17 of Stoker textbook
- Introduction to Biochemistry: Selected section from Chapter 18 – 22 of Stoker textbook
- 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

While AI can be a helpful resource for understanding concepts or providing guidance, it should not be used to generate solutions to homework problems. It is important to approach your work with integrity and personal effort. Relying on AI to complete assignments undermines your own learning and development. Using AI as a shortcut not only hinders your growth, but it also compromises the value of your achievements. In order to build essential skills, problem-solving abilities, and critical thinking, it is crucial to engage directly with your work. AI should be used as a tool for enhancement, not as a substitute for the effort and dedication required to succeed. Students are encouraged to seek help from instructors, tutors, or peers if they are struggling with the material.

Students are expected to complete all homework assignments using their own knowledge and skills. The use of AI tools to solve homework problems is strictly prohibited, as it undermines the learning process and academic integrity. Any instances of AI-assisted work will be considered cheating and may result in a zero on the assignment. The assignments have been structured so it will be obvious if you just use AI to solve the problems.

It is perfectly OK to use AI to evaluate your understanding of the material after you have attempted to solve the problems on your own. Even then do not just enter the answer the AI tool gives you but use it as a tool to reevaluate your work and determine where you made the error.

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

Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at accessibilityservices@uvu.edu 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 [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](#).

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 – TitleIX@uvu.edu – 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 accessibilityservices@uvu.edu. 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 [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.