Walters State Community College Course Syllabus

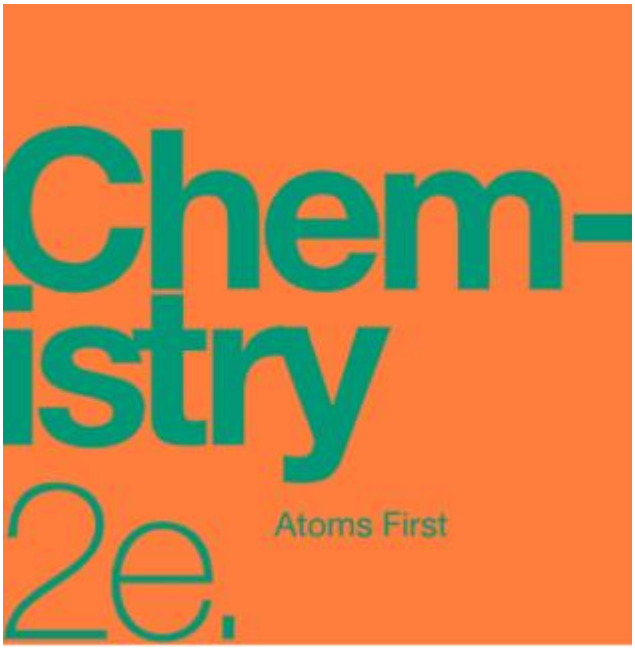
Course Information

Course Number and Name: CHEM 1010 Introductory Chemistry I
Section ID: 82126.202580
Semester and Year: Fall 2025
Credit Hours: 4
Start Date: August 25, 2025
End Date: December 11, 2025
Course Format: CON - Conventional Methodology
Catalog Course Description: Introductory Chemistry will cover topics dealing with elementary concepts, atomic structure, periodic law, symbols, formulas, equations, bonding, gas laws, acids, bases, solutions and equilibria. Pre/Co-requisite: CHEM 1011 **F,S, Su**
General Education Course Designation: General Education Course
Meeting Details: MTWRF; 08:15AM - 09:45AM; CCHS
Course Drop Deadline: October 31, 2025

Instructor Information

Name: Dr. Mitzy Hall
Office Location: CCHS ANNEX 212
Office Hours: 3-4 pm M-R
Office Phone: 4232375457
Email: hallm@cocke.k12.tn.us
Supervisor Name: Dr. Matthew Smith
Supervisor Phone: 423-585-6881
Secretary Name: Kellye Martin
Secretary Phone: 423-623-8718

Required Textbook(s) and Materials



Chemistry Atoms First 2e
Subtitle: Open Educational Resource (OER)
ISBN: 13: 978-1-947172-61-6
Authors: Paul Flowers, Klaus Theopold, Richard Langley, Edward J. Neth, William R. Robinson
Publisher: OpenStax
Publication Date: 2019-02-14
Edition: 2nd
Additional Information
Book can be downloaded at https://openstax.org/details/books/chemistry-atoms-first-2e

Supplemental or Optional Materials

All supplemental material is given under modules within the course in eLearn.

Category Learning Outcomes

The goal of the General Education Natural Sciences requirement is to guide students toward becoming scientifically literate as issues in today's world require scientific information and a scientific approach to informed decision making. This scientific understanding gained in these courses enhances students' ability to define and solve problems, reason with an open mind, think critically and creatively, make sound judgements after critical evaluation of data, and make decisions that may have local or global significance. This course will focus on developing:

Scientific Inquiry & Mathematical Reasoning - Understand and explore the world through observation and experimentation, mathematical principles and formal reasoning.

Critical Thinking - Analyze and evaluate ideas, issues and evidence to form rational conclusions.

This table shows the Category Learning Outcomes (CLO) for Natural Sciences.

CLO #	Category Learning Outcomes (CLO)	Primary Core Competencies
1	Use Scientific principles to apply experimental techniques, make observational analyses, interpret experimental results, and draw logical conclusions	
2	Describe the natural and/or physical world using basic scientific language and processes.	
3	Apply scientific principles to address problems or issues in the natural and/or physical world.	
4	Critically analyze the impact of scientific discoveries on society.	

Student Learning Outcomes/Objectives

This table describes the Student Learning Outcomes/Objectives (SLO) and identifies the related Category Learning Outcomes (CLO) for this course. Upon successful completion of this course, students will be able to:

Table linking the Student Learning Outcome/Objective (SLO) to the Category Learning Outcomes (CLO).

SLO #	Student Learning Outcome/Objective (SLO)	CLO 1	CLO 2	CLO 3	CLO 4
1	**Measurements**- describe metric units, unit conversions, scientific notation and significant figures.	X	X	X	X
2	**Atoms and Elements**- discuss atomic structure, electron configuration and design of periodic table.		X	X	X
3	**Compounds and Bonding**- discuss covalent and ionic compounds, valence electrons, Lewis structures and molecular shapes; demonstrate ability to write and name chemical formulas.		X	X	X
4	**Chemical Reactions and Quantities**- demonstrate ability to balance chemical equations, classify and calculate stoichiometric quantities in chemical reactions, describing factors that affect the rate of a chemical reaction as well as chemical equilibrium.	X	X	X	X
5	**Energy and States of Matter**- describe potential and kinetic energy, heating and cooling curves, endothermic and exothermic processes, and food calorie.	X	X	X	X
6	**Gases-** describe the relationships between pressure, volume, temperature and quantity using the combined and ideal gas laws.	X	X	X	X
7	**Solutions**- calculate molarity and percent concentration; discuss electrolytes, osmosis and solute solubility.	X	X	X	X
8	**Acids and Bases**- describe acids and bases, conjugate pairs, acid strength and buffers; discuss pH scale and pH calculations.	X	X	X	X

LAB

The course is designed around a common core of interactive laboratory activities that relate to and reinforce the student learning outcomes also listed for the lecture course, CHEM-1010. Topic content and labs for the core are shown below and are available in eLearn.

A. Laboratory Safety
B. Measurement and Significant Figures
C. Conversion Factors in Calculations
D. Density and Specific Gravity
E. Atomic Structure
F. Electron Configuration and Periodic Properties
G. Compounds and Their Formulas
H. Energy and Specific Heat
I. Chemical Reactions and Equations
J. Reaction Rates and Equilibrium
K. Moles and Chemical Formulas
L. Gas Laws
M. Solutions, Electrolytes and Concentration
N. Testing for Cations and Anions
O. Acids, Bases, pH and Buffers
P. Acid-Base Titration
Q. Preparation of Aspirin

Instructional Approach and Methods

- Lectures (on-line or in-person asynchronous/synchronous)
- Lesson Activities (could include instructor created or supplemental publisher materials)
- Class participation
- Videos (pre-recorded lectures)
- Reading
- Homework (in course management system (CMS) or publisher sites)
- Assignments (Quizzes, Exams)
- **LABS**

Lectures and discussion: You are expected to attend class, pay attention, and participate actively in discussions by answering questions, asking questions, and making comments. You will get more out of the lecture if you have read the material in the textbook ahead of time. Always bring your book with you to lecture. Outlines and PowerPoint presentations used in lecture may be available for your review on the Walters State eLearn page for this course.

Reading: The textbook provides a good general introduction to the field of basic chemistry. The book covers most of the topics that are approached in the class. Thus, it will serve to augment lecture and to provide material for discussion. In addition, readings in the book will support the material that you will be studying in labs. The book includes many things which will help you

understand the material and study for the tests, including a list of key concepts, chapter summaries, review questions, quizzes, and a list of key terms.

Satisfactory performance in college courses generally requires two hours of study outside of class for each hour in class. This estimate applies to an "average" student expecting an "adequate" (C) grade. Students aiming higher or those with academic problems should expect to spend more effort than the minimum. Should you procrastinate, not read ahead of time, or expect to cram everything on the last days before exams, this course may not be for you.

The Student Can Expect from the Instructor:

- Email response within 24-48 hours during the normal work week. Holidays and vacations excluded.
- Email during the weekend will be answered on Monday.
- Exams will be graded and returned within a timely manner.
- Projects/Assignments/Labs will be graded and returned in a timely manner according to project difficulty.
- Enthusiasm for the subject and encouragement to help you when you need it.
- A fair grading system with feedback.
- Learning that ties concepts into the real world around us.
- Respect for you as a learner.

Lab and experiments

There will be a pre-lab lecture to go over the experiment, with an emphasis on safety, proper technique, and proper waste disposal. The students will then conduct an experiment and receive a grade based on technique and experimental results turned in on the data sheet.

Lastly, there will be a clean-up on the last day of lab along with a possible comprehensive lab final for the semester. Your professor will communicate all testing requirements on the first day of class/lab.

Assessment, Evaluation and Testing Procedures

Chemistry exams will emphasize factual knowledge and assess the achievement of the Student Learning Outcomes. Short answer, essay questions, diagrams and multiple-choice questions may be used.

Grading Policy/Evaluation:

Lecture Breakdown:
Exams/Homework/Quizzes/Assignments = 50%
Comprehensive Final Exam = 25%
Lab = 25%

A description of how the professor will divide the Exams/Homework/Quizzes/Assignments will be provided to all students on the first day of class. Assignments and exams may be given in class or online via d2L/eLearn. For those administered online through d2L/eLearn, students may be required to use a virtual proctoring program like Respondus Lockdown Browser. Virtual proctoring programs will require fast, reliable internet, a compatible device, microphone, and webcam. If the student does not use the specified requirements or the entire assignment or exam is not completely proctored, this could result in a grade of zero "0" for the assignment or exam. Students will be provided specific testing procedures and assignment completion information directly from the instructor. All Final Exams will be proctored.

Exam Policy:

- ALL exams are to be taken at times scheduled by the instructor.
- Criteria for all exams must be followed in order to receive a passing grade for the exam(s).
- Plagiarism, cheating and other forms of academic dishonesty are prohibited and may result in a grade of zero on associated assessments and potentially an "F" for the entire course.

Missed Exam/Assignment Policy:

Students are expected to attend classes regularly and on time and are responsible for giving explanations/rationale for absences and lateness directly to the faculty member for each course in which they are enrolled. The student remains responsible for verifying the emergency circumstances to faculty and for discussing arrangements with faculty for completion of course work requirements. Make-up work (assignments, exams, labs) may be administered at the discretion of the instructor. Make-up work, when permitted, should be administered at the earliest date possible. In instances where a make-up opportunity is not permitted, the instructor will provide the student with a detailed explanation as to why. Students should work with their instructor to resolve issues related to absences and missed work. If a resolution can't be reached, the student should contact the department head/dean. Work that is missed due to an unexcused absence will count as a 0 towards the student's overall class average. Final examinations are to be given during the scheduled final examination period.

Lab Assessment, Evaluation and Testing Procedures:

Assignments will be given in lab and not online. Lab writeups will be due the day the laboratory experiment was conducted. Lab assignments should be graded and returned to the student by the next class meeting. **Due to the constraints of setting up a laboratory for makeup, the lowest graded lab assignment will not be counted in the overall grade. If you miss or are absent from a scheduled lab day, the grade for that lab will be zero and be identified as your lowest graded assignment and not be counted in your overall assignment grade. Any other lab day(s) missed will result in a zero for that lab(s) and be counted in the overall grade.**

Grading Scale

The following table shows the requirements needed to achieve a letter grade.

Grade	Percentage Achieved
A	90%-100%
B	80-89%

C	70-79%
D	60-69%
F	0-59%

Lecture grade breakdown.

Graded Item Descriptions	Points/Weighted %
Exams/Homework/Quizzes/Assignments	50%
Comprehensive Final Exam	25%
Lab	**25%**

Assignments

Exams: There will be five modular exams. They are focused on the student's ability to understand the learning outcomes as demonstrated by performance on course examinations. Multiple choice, short answers, matching, and essay questions may be used. Proficiency in the course is achieved through comprehension of the lectures, discussions, worksheets and practice quizzes.

Module Quizzes: These quizzes assess the student's progress on a regular basis. The quizzes will cover topics introduced in the lectures, labs, readings, associated video segments, and homework questions. Module quizzes assess the student's understanding of the material at that point in the course.

Final Exam: There will be a comprehensive final exam. It focuses on the student's ability to understand the learning outcomes. Proficiency in the course is achieved through comprehension of the lectures, discussions, worksheets and practice quizzes.

Lecture Extra Credit: Each professor has the option to offer the opportunity to earn UP TO 20 additional points throughout the semester. The instructor's policy will be explained in detail on the first day of class. In no instance will credit be provided for any activity unrelated to the course's scope. The aim of the class is to get a solid understanding of chemistry so that grades reflect our abilities to communicate the material and not a supplementary assignment or task. All students, especially those who feel they are struggling with the material, are strongly encouraged to use office hours, send emails, make appointments for extra help, etc. throughout the semester.

Labs: Students will participate in lab activities that reinforce concepts introduced during lecture.

Pre-lab lectures*:* Each week, a mandatory pre-lab lecture will be held to review the upcoming experiment, with a focus on safety protocols, proper lab techniques, and correct waste disposal procedures. Students who do not attend the pre-lab lecture may be prohibited from participating in the lab due to safety and liability concerns.

Experimental data sheets/lab reports**:** Students will conduct an experiment and receive a grade based on technique and experimental results turned in on the data sheet.

Final Exam and clean-up*:* A comprehensive final exam will be given at the end of the semester, covering all laboratory experiments conducted throughout the term. In addition, students will be responsible for cleaning their workstations and checking out of their lab drawers.

Class Participation

Class participation is required and attendance is recorded.

Each professor has the right to determine different types of participation required through the semester. The instructor's policy will be explained in detail on the first day of class. Students are expected to communicate with the instructor on a regular basis and check provided calendar(s), News Items (in Teams, eLearn or Publisher Homework site), and email frequently for announcements or changes in the course. Students must actively participate in the class consistently and at a steady pace.

Course and Class Policies/Procedures

Lecture and Lab:
This course is being offered in a **CONVENTIONAL** (CON) format, wherein students should expect to attend each scheduled meeting in-person. It is anticipated that proctored exams will be given in-person during a scheduled class meeting.

You will get more out of the lecture if you read the material in the textbook/handouts/worksheets ahead of time. Learning Outcomes for students can be found in the Walters State eLearn page for this course.
Outlines/PowerPoint/videos/worksheets/handouts used in lecture course may be available for your review on the Walters State eLearn page for this course.

Additional Course Requirements/Details/Information

Lab Safety:

Laboratory Safety Goggles are required and will be worn properly while in the lab and completing your laboratory experiment.
There will be NO food, drink or tobacco products in the laboratory.
NO opened-toe shoes can be worn during lab. You will not be allowed to stay in the laboratory if the lab exercise uses any sort of glassware or chemicals.
NO purses, bags or coats on top of the student tables.
NO visitors in the laboratory without prior approval of the instructor.

Lab-Your Right to Know:

Tennessee Law requires that you are provided notice that some of the laboratory exercises involve contact with chemicals which have been identified with potential health hazards. These chemicals include, but are not limited to: acetone, chloroform, formalin, acids and bases. While every effort has been made to make the materials as safe as possible these chemicals are toxic and you must be responsible for their safe handling. If **you** feel you may be at a higher risk than normal, if pregnant for example, we recommend you consult your physician.

Academic Honesty

Faculty expect all students to refrain from acts of academic misconduct including but not limited to:

1. Plagiarism - refers to using another person's ideas or writing without giving proper credit to the original source. Indulging in this type of conduct will subject the student to disciplinary sanctions, which may be imposed through the regular institutional procedures of Walters State Community College as outlined in the Student Handbook. Plagiarism will result in a grade of "0" for the paper/exam/presentation. Student Conduct and Disciplinary Sanctions contained in the college Catalog/Student Handbook apply (see policy 04:18:02 Disciplinary Sanctions). Plagiarism includes, but is not limited to the following:
    a. Using cut/paste tool from original document with no references given.
    b. Copying another student's work and submitting it as one's own.
    c. Forging or otherwise altering signatures.
    d. Giving or falsifying academic documents or materials.
2. Cheating - construed as attempting to deceive or mislead which includes, but is not limited to the following:
    a. Utilizing old tests, projects, notes or written papers.
    b. Providing unauthorized information to a fellow student about exam content.
    c. Receiving unauthorized aid from any source with quizzes, examinations, or other assignments.
    d. Seeking information in an unacceptable manner during/preceding an exam or other assigned work (cheat sheet, verbal exchange, looking at another person's paper or electronic device, utilizing headphones, using textbook when the test/quiz is not an open book test/quiz, using textbook test bank etc.).
    e. Consulting with a classmate or others when taking a computerized test.
    f. Disregarding other specific policies and procedures outlined for a particular class.
    g. Utilizing unapproved technology/electronic equipment during testing (i.e.: mobile devices such as cell phones, smart devices, or tablets, etc.).
    h. Using the same Internet Protocol network address (IP address) as another student for testing without approval from the course faculty.
3. The use of any generative artificial intelligence (AI) tool must be cited for any assignment where it has been used and may not be used unless specifically allowed by your instructor. Please see your instructor or the course policies within the syllabus if you have questions.

Student Resources

TUTORING SERVICES

Students in need of tutoring assistance are encouraged to contact the Office of Student Tutoring located as follows:

- Morristown Campus - Student Services Building Room L107 - (423) 585-6920
- Niswonger Campus - GRNV 226 - (423) 798-7982
- Sevierville Campus - MMH Room 210 - (865) 286-2787
- Claiborne Campus - Room 123A - (423) 851-4761

Specific tutoring assistance in mathematics and writing is available in-person and online as follows:

- Morristown Campus - English Learning Lab - HUM 120 - (423) 585-6970

  Walters State English Learning Lab (opens in new window)
  ws.edu/academics/humanities/writing-lab

- Morristown Campus - Mathematics Lab - MBSS 222 - (423) 585-6872

  Walters State Mathematics Learning Lab (opens in new window)
  ws.edu/academics/mathematics/learning-lab

TECHNOLOGY SUPPORT

Students who need assistance with computing and technology issues should contact the IET Helpdesk by phone at Morristown: (423) 318-2742; Niswonger: (423) 798-8186; or Sevierville: (865) 286-2789 or on-line access.

Walters State Helpdesk (opens in new window)
helpdesk.ws.edu

STUDENTS WITH DISABILITIES SUPPORT SERVICES

Students with disabilities must register with Student Support Services each semester in the Student Services Building, Room U134 (phone (423) 585-6892) if they need any special facilities, services, or consideration.

Walters State Student Support Services (opens in new window)
ws.edu/student-services/disability/

SUICIDE PREVENTION STATEMENT

Walters State is committed to and cares about all students. Support services are available for any person at Walters State who is experiencing feelings of being overwhelmed, hopelessness, depression, thinking about dying by suicide, or is otherwise in need of assistance. For immediate help, contact the National Suicide Prevention Lifeline by calling or texting 9-8-8 or the Trevor Lifeline at 1-866-488-7386. Veterans may also contact the Veterans Crisis Line at 1-800-273-8255 (press 1) or Text 838255.

Walters State has a relationship in place with the following community agencies to provide services (may include crisis referral services, prevention screenings, etc.):

- Cherokee Health Systems 423-586-5032
- Frontier Health 423-467-3600

College Policies

STUDENTS HANDBOOK AS OFFICIAL GOVERNING DOCUMENT

This class is governed by the policies and procedures stated in the current Walters State Community College Student Handbook. All students attending Walters State Community College, regardless of the time, location, or format of the class, must abide by the rules and regulations outlined in the current Walters State Catalog/Student Handbook and the current Walters State Timetable of Classes.

Walters State Catalog (opens in new window)
catalog.ws.edu/

Walters State Timetable of Classes (opens in new window)
ws.edu/admissions/registration/

PURPOSE, LIMITATIONS AND MODIFICATION OF SYLLABUS

This syllabus sets forth the expectations for the course content, work, and grading as well as expectations for student performance and conduct. The syllabus does not constitute a contract between the student and the instructor or the College. The information contained here is subject to change at any time. The instructor reserves the right to modify this syllabus at any time with written notification to the students. Though changes are possible, it is expected that the course will be conducted as described in this syllabus for the semester/year specified in the Course Information section of the syllabus. This syllabus is only valid for the semester/year specified and course requirements are not guaranteed for future semesters.

COURSE GROUND RULES

- Students must attend the first day of on-ground class or contact the instructor prior to the first class. Failure to do this may result in being dropped from the class. Excessive absences may substantially lower the course grade.
- Regular class attendance is a student's obligation for any course regardless of format. (See the Walters State Catalog/Student Handbook). If a student misses class, it is his or her responsibility to contact the instructor regarding missed assignments and/or activities and to be prepared for the next class assignment.
- Students enrolled in web courses must follow the course attendance policy defined for online attendance during the first week of class and throughout the term. Failure to do this may result in being dropped from the class during week one OR may result in the accrual of absences which may negatively impact the student's grade in the course.
- Students who have not paid fees on time and/or are not correctly registered for this class and whose names do not appear on official class rolls generated by the Walters State student information system (MyWS) will not be allowed to remain in class or receive credit for this course.
- Electronic devices must not disrupt the instructional process or college-sponsored academic activity. Use of electronic devices is prohibited unless use of the device is relevant to the activity and use is sanctioned by the faculty member in charge. Electronic devices that are not relevant to the activity or sanctioned by the faculty member in charge should be set so that they will not produce an audible sound during classroom instruction or other college-sponsored academic activity.

FINANCIAL AID

Students receiving any type of financial aid or scholarship should contact the Financial Aid Office before making any changes to their schedule. Schedule changes without prior approval may result in loss of award for the current term and future terms.

All forms of student Financial Aid may be jeopardized or lost due to the lack of Satisfactory Academic Progress in one or multiple courses. Lack of Satisfactory Academic Progress may negatively impact a student's degree/certificate completion pace and further jeopardize Financial Aid eligibility.

CANCELLATION OF CLASSES AND ACADEMIC CONTINUITY

For information related to the cancellation of classes due to inclement weather or other events, please check the Senators Emergency Text system or the college's Web site at:

Walters State Homepage (opens in new window)
ws.edu/home/

Walters State Facebook page (opens in new window)
https://www.facebook.com/WaltersState/

Walters State Twitter page (opens in new window)
https://twitter.com/waltersstate

or call the college's student information line, 1-800-225-4770, option 1; the Sevier County Campus, (865) 774-5800, option 7; the Niswonger Campus (423) 798-7940, option 7; or the Claiborne County Campus, 423-636-6200, option 7. Also, please monitor local TV and radio stations for further announcements.

When an event or disaster interrupts the scheduled operations of the college and the ability to proceed with the academic course activities as planned, the college and your instructor may alter the course plan outlined in the syllabus. Should an event occur, students should refer to their course e-Learn pages and/or class materials previously delivered to receive guidance from their instructor. Students should continue to monitor the official college channels of communication listed in the above paragraph. If you would like to sign up for the Senators Emergency Text system, please go to the following Web site:

Senator Emergency Text System (opens in new window)
ws.edu/set/

Dual Enrollment students attending on a high school campus should refer to the high school inclement weather cancellations.