



## North Central State College

### MASTER SYLLABUS

2025-2026

- A. Academic Division: Health Sciences
- B. Discipline: Science
- C. Course Number and Title: CHEM1010 Introduction to Chemistry
- D. Assistant Dean: Heidi Kreglow, PT
- E. Credit Hours: 3  
Lecture: 2 hours  
Laboratory: 2 hours
- F. Prerequisites: MATH0074 or MATH0086 or STAT0086 (minimum grade of C- for all) or qualifying placement test score
- G. Last Course/Curriculum Revision Date: Fall 2023                      Origin date: 10/20/2010
- H. Textbook(s) Title:

Open Education Resource (available for download or view)

*CHEM 1010: Introductory Chemistry – chem.libretexts.org*

- Author: shared under a not declared license and was authored, remixed, and/or curated by Dr. Travis Green.
- Copyright Year: 2024
- Edition: 1<sup>st</sup>
- ISBN: (Digital)
- OER LINK:  
[https://chem.libretexts.org/Courses/North\\_Central\\_State\\_College/CHEM\\_1010%3A\\_Introductory\\_Chemistry](https://chem.libretexts.org/Courses/North_Central_State_College/CHEM_1010%3A_Introductory_Chemistry)

- I. Workbook(s) and/or Lab Manual:
- J. Course Description: This course is designed as an introductory course in chemistry for those students who have no previous chemistry background. The factor-unit method of problem solving, mathematical operations used in solving chemistry problems, chemical terminology, and basic laws of chemistry are covered. Chemistry applications to allied medicine will be emphasized. Laboratory exercises will enhance and reinforce lecture topics.
- K. College-Wide Learning Outcomes

College-Wide Learning Outcomes	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Define the units of the metric system and demonstrate the ability to convert between units.	Quizzes, laboratory exercises, worksheets, exam 1, final, met at end of semester
2. Demonstrate an understanding of the periodic table by explaining its organization; identifying the 1 <sup>st</sup> 20 elements; predicting the kinds, numbers, and arrangement of the subatomic particles.	Quizzes, laboratory exercises, worksheets, exam 1, final, met at end of semester
3. Identify the forces involved in compound formation and will be able to name the compound and write its formula.	Quizzes, laboratory exercises, worksheets, exam 1, final, met at end of semester
4. Identify the basic chemical reactions and show by example how to balance chemical reactions and determine stoichiometric ratios.	Quizzes, laboratory exercises, worksheets, exam 1, final, met at end of semester
5. Describe the states of matter, how changes of state occur, and energy balances involved in these changes.	Quizzes, laboratory exercises, worksheets, exam 1, final, met at end of semester
6. Describe the behavior of gases, and use the appropriate gas law to solve problems.	Quizzes, laboratory exercises, worksheets, exam 1, final, met at end of semester
7. Describe the nature of aqueous solutions and their characteristics.	Quizzes, laboratory exercises, worksheets, exam 2, final, met at end of semester
8. Define and describe the properties of a solution and demonstrate the ability to perform calculations involving concentrations.	Quizzes, laboratory exercises, worksheets, exam 2, final, met at end of semester
9. List the properties of acids and bases and relate these characteristics to pH values.	Quizzes, laboratory exercises, worksheets, final, met at end of semester
10. Describe radiation's uses to nuclear medicine	Quizzes, laboratory exercises, worksheets, final, met at end of semester
11. Current issues in chemistry will be discussed.	Throughout the semester.
12. Have completed introductory laboratory experiments that test basic chemistry principles.	Laboratory exercises, midterms, final, met at end of semester

M. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70–72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63–66	D	1.00	Below Average
60–62	D-	0.67	Poor
00--59	F	0.00	Failure

N. College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.\* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences.

Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

\* *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

**Important information regarding College Procedures and Policies can be found on the syllabus supplement located at**

**<https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf>**



North Central State College  
SYLLABUS ADDENDUM

Academic Division:	Health Sciences	Discipline:	Chemistry
Course Coordinator:	Travis Green		
Course Number:	CHEM 1010-922/CHEM 1010-923	Course Title:	Introduction to Chemistry
Semester / Session:	Fall 2025	Start / End Date:	08/11/2025 – 10/3/2025

**Lecture Instructor Information:**

Name:	Professor Ben Alexander	Phone Number:	
		E-Mail Address:	balexander@ncstatecollege.edu
Office Location:	On Zoom	Office Hours:	By Appointment via Zoom

**I. Topical Timeline (Subject to Change):**

Weeks	Date	Lecture Topic	Lab Experiment
1	Aug 11	Course Orientation Chapter 1: The Chemical World	Lab 1: Density
2	Aug 18	Chapter 2: Matter and Energy Chapter 3: Atoms and Elements	Lab 2: Atoms and Elements
3	Aug 25	Chapter 4: Molecules and Compounds Exam 1	Lab 3: Introduction Ionic and Covalent Bonding
4	Sept 1	Chapter 5: Chemical Composition Chapter 6: Chemical Reactions	Lab 4: Reactants, Products and Leftovers
5	Sept 8	Chapter 7: Electronic Structure Chapter 8: Chemical Bonding	Lab 5: Molecular Shape
6	Sept 15	Chapter 9: Gases Chapter 10: Liquids, Solids, and Intermolecular Forces Exam 2	Lab 6: Gas Laws
7	Sept 22	Chapter 11: Solutions Chapter 12: Acids and Bases	Lab 7: Acids and Bases
8	Sept 29	Chapter 13: Radioactivity and Nuclear Chemistry Final Exam	Extra Credit Lab: Nuclear Chemistry

**II. Course Assignments:**

**1. Concept Check In Quizzes**

- The concept check in quizzes (CCI's) are short 5-10 question assignments meant to test your understanding of the material after watching the micro-lecture videos. These are low point assignments that will give you feedback on sections you should review in the text and videos before moving on to the homework assignments.

**2. Chapter Homework Assignments**

- The chapter homework assignments will be completed on canvas using canvas quizzes. These assignments can only be turned in once and will give you feedback on what to review to help you prepare for the exams.

### 3. Lab Experiments

- a. We will have weekly lab experiments designed to support our lecture topics. To complete the lab you must go to the lab canvas course. Each week has a prelab quiz to help you recall information from lecture. You will then go to the lab assignment and download the worksheet for that lab. You will follow the instructions given and use the link provided to access the online simulation. You must fill out the worksheet and resubmit it on canvas.

### 4. Discussion Posts

- a. There will be weekly discussion boards meant to help us to engage with the material together. You will be expected to respond to a prompt and then interact with other students' responses. The initial post is always due on Wednesday and the final post is always due on Sunday.

### 5. Exams

- a. There will be 3 exams total. The first two exams will occur throughout the term and will cover around 6 chapters each. These exams will take place on canvas and will be graded automatically. The final exam will be a cumulative final that covers all the material covered in the course.

## III. Grading and Testing Guidelines:

### 1. Grade Breakdown

Assignment	Weight Towards Final Grade
Participation / Attendance	2 %
Discussion	3 %
Laboratory Exercises	25 %
Quizzes	20 %
Homework	20 %
Exams (3)	30 %

NOTE: No extra credit will be granted at the end of the semester. If your grade is above .5 below the next grade up it will be rounded. For example, if your course grade is a 76.5 or higher it will be rounded up to a 77. This is a hard cut off meaning if your score is a 76.49 it will not be rounded. Please refrain from asking for extra points if this applies to you at the end of the semester.

### 2. Late Assignment Policy

- a. All assignments (except exams and presentations) can be turned up to one week after the due date. If the assignment is late, it will be docked 3% per day it is late automatically.
  - NOTE: Technical malfunctions will not be accepted as an automatic excuse for late work. Part of success online and as a professional is to be prepared.
  - NOTE: Once the 1-week grace period has passed a 0 will be put into the gradebook.
  - NOTE: For Prof. Alexander to reopen an assignment after the assignment closes you must provide documentation that shows and explains why you were unable to complete the assignment within the two-week grace period.

### 3. Make-Up Assignments

- a. Lecture Assignments:
  - With the flexible late policy there will be no makeup opportunities granted for class assignments unless documentation is provided that shows and explains why you were unable to complete the assignment within the two-week grace period.
- b. Lab Assignments:
  - With the flexible late policy there will be no makeup opportunities granted for lab assignments unless documentation is provided that shows and explains why you were unable to complete the assignment within the two-week grace period.

**4. General Turn Around Time for Work Being Graded**

- a. In general, you can expect your graded work to be returned to you two weeks after it has been turned in. I will do my best to enter all grades into the canvas gradebook in a timely manner. If you see that I have not entered a grade into canvas and it has been turned in for 3 weeks feel free to email me about your grade.

**IV. Examination Policy:**

1. The reasons for which a student will be excused from taking an examination:
  - a. Hospitalization (with documented verification)
  - b. Death in the immediate family (with documented verification)
  - c. Personal illness or illness in immediate family (doctor's excuse required)
  - d. Personal or Family Emergency (with documented verification)
  - e. Mandated work (documentation required)

**V. Classroom Expectations:**

1. Interactions with Prof Alexander
  - I expect that you will come to Prof Alexander with any questions, comments or concerns you may have!
2. Online Expectations
  - a. I expect you to read through the weekly checklists and look ahead for due dates. This class moves at a fast pace and it is easy to get behind if you are not on top of everything. I expect you to watch all of the micro-lecture videos and complete the weekly quizzes on time.
3. Email Policy
  - a. You need to check your NCSC emails and Canvas Inbox announcements daily. Any emails to the instructor must be from your NCSC email account or from the student to the faculty using the canvas system. They must have a subject, be written in full sentences, and be signed with your name. Do not send an email written like a text message. Your email will be answered within 24 hours of a business day.
4. Student Misconduct
  - a. Misconduct is disorderly or disruptive conduct that interferes with the normal operations of the College or infringes on the rights of others. You will be told to leave the classroom or lab if you violate this policy. See Student Handbook for more information.
  - b. Academic Integrity is an important issue. Any student caught cheating or plagiarizing will receive a 0 on the assignment and will be reported to the your program director and the Dean of your division. This could result in failure of the assignment, failure of the class, dismissal from your program, and or dismissal from the college.
    - If you ever find yourself in a situation where you are considering academic dishonesty STOP and contact Prof Alexander. I would much rather you turn in an assignment late instead of possibly being dismissed from the college.

**VI. Important Dates and Information**

1. Testing Accommodations
  - a. Accommodations are available for students with learning disabilities or health conditions. If you think you may qualify or have qualified in the past for accommodations you need to reach out to Doug Heestand at NCSC's disability services office. Prof Alexander can refer you if needed.
  - b. You must initiate this process and send Prof Alexander the form to sign so it can be taken care of ASAP. There is no retroactive accommodations for exams or assignments completed before the forms are signed.

**Course Number:** CHEM 1010  
**Semester / Session:** Fall 2025

**Course Title:** Introduction to Chemistry  
**Start / End Date:** 08/11/2025 – 10/03/2025

2. Diversity Statement

- a. Our classroom is a space where all students, regardless of their backgrounds, identities, or experiences, are valued and respected. We are committed to fostering a learning environment that celebrates diversity, promotes equity, and ensures inclusion for everyone.

In this course, we recognize that chemistry, like all sciences, benefits from diverse perspectives and collaborative contributions. We strive to:

- Acknowledge and respect the unique experiences, cultural heritage, and voices each student brings to the learning process.
- Provide equitable access to resources and opportunities, ensuring that all students can succeed regardless of race, ethnicity, gender, sexual orientation, disability, socioeconomic status, or other identities.
- Create a supportive atmosphere where students feel safe to express ideas, ask questions, and learn from one another without fear of discrimination or bias.

If you encounter barriers in this course or experience challenges related to diversity, equity, or inclusion, please feel free to reach out to me or the university's resources for support. Your feedback is welcome as we work together to cultivate an inclusive learning environment where everyone can thrive.

3. Support

- a. NCSC has many support services available. Let Dr. Green know if you need or would like to be referred to any of the following:
- i. Tutoring
  - ii. Counseling / Mental Health Services
  - iii. Financial Aid
  - iv. Food Security / Pantry
  - v. Childcare