



North Dakota State College
of Science

2025-2026 Syllabus

Term: Fall 2025



Course Information

Course Number: Chem 121
Course Title: General Chemistry I Lecture
Credit Hours: 4

Instructor Information

Instructor: Brad Amundson
Phone: 701-356-2050
Email: bamundson@west-fargo.k12.nd.us
Office Location: 223J
Office Hours: 4A, 4B

Course Description

This Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first semester of college. This course provides instruction on structure of matter (atomic theory and structure and chemical bonding), states of matter (gases, liquids, solids and solutions), and reactions (reaction types, stoichiometry, equilibrium, kinetics). A special emphasis will be placed on guided inquiry and student directed laboratory experiments. There will be a strong emphasis placed on topics requiring calculations and mathematical formulations. This course is **open to all students** who wish to take part in a rigorous and academically challenging course.

Textbook and Required Materials

1. Zumdahl, Steven, Susan Zumdahl, and Donald J. DeCoste. Chemistry, Tenth Edition. Cengage (Brooks/Cole) 2018 ISBN#:
2. Scientific calculator
3. A notebook and writing utensil.
4. 3 ring binder to keep track of all materials.

Learning Goals/Outcomes

Upon completion of this course, the student will be able to:

1. Demonstrate knowledge of the states of matter: physical state (solids, liquids, gases), physical/chemical changes and intermolecular forces.
2. Demonstrate knowledge of solution formation and properties of solutions: solubility, colligative properties, acid-base equilibria, and solubility product constant.
3. Demonstrate knowledge of the characteristics of chemical reactions: rate of reaction, chemical equilibrium, thermodynamics, and the relationship between these concepts.
4. Demonstrate knowledge of the characteristics of electrochemistry: balancing redox equations, construction of voltaic cells, calculation of emf, and the relationship between these concepts.
5. Demonstrate knowledge of the characteristics of nuclear chemistry: types of radioactive decay, rate of radioactive decay and applications of radioactivity.

Grading and Evaluation

- Course work is graded within 48 hours of completion to provide timely feedback to the student, with the exception of Unit Exams. Unit Exams may take up to 72 hours for grading and completion.
- All work has the potential to receive full credit if turned in on time.
- Work turned in 1 class day late has the potential to receive half credit.
- After 1 class day work cannot be turned in for credit.

Grading Scale

- Homework and in-class practice – 30%
- Exams – 70%

Grading System	Percent
A	90%-100%
B	80%-89%
C	70%-79%
D	60%-69%

Attendance Policy

- To be successful in this class, regular attendance is essential. If a student misses a class for an excused reason (sickness, family emergencies, scheduled appointments, etc.) the student will need to get work completed for as many days as they missed plus one.
- If a student missed for unexcused reasons, the work may NOT be made up for credit.

Tie to Assessment Outcomes

- This course ties to the NDSCS general education student learning outcomes of Problem Solving/Critical Thinking.

Course/Instructor Expectations

- For this course students are expected to be:
 - On Time
 - Respectful
 - Able to “do the right thing”
- The weekly schedule will be posted online. Also posted online will be a link for days when the class will meet digitally. During digital instruction students must have their cameras on unless the instructor says otherwise.
- During all class sessions, students must follow and abide by all school rules.
- **Activities/Club Eligibility:**
 - It is YOUR responsibility to complete all the required schoolwork for this class. That means that this class is a higher priority than your club or activity.
 - Per the new WFHS policy, if you are failing this class but complete a retake or submit missing/late assignments that follow the above policy, you COULD earn a passing grade.
 - It is YOUR responsibility to keep track of your grades and submit all make up or late work as needed.
 - ALL EXAM RETAKES, MAKE-UP EXAMS, MAK-UP OR LATE WORK completed will NOT BE GRADED UNTIL THE NEXT GRADING PERIOD (Thursday grade pull)
- **Absences**
 1. If you are sick or required to stay home from school, the expectation is to cover the material from that day at home.
 - a. Contact your teacher to get needed material.
 - b. all documents SHOULD be on Schoology
 2. Extra-curricular absences
 - a. All work must be completed or have made arraignments with teacher **before you leave** for your extra-curricular activities. If not, it is a zero.
 - b. THIS INCLUDES EXAMS!!!!**
 3. Quizzes/Exams
 - a. If a student is gone for an exam it must be made up ASAP.
 - ❖ **If a student is gone the day before a test and only that day, they will make up the test the day they return to school NO EXCEPTIONS.**
- Topics this course will cover are listed below:
 - Unit 1: Matter, Chemical Quantities and Solutions
 - Unit 2: Atomic Structure
 - Unit 3: Chemical Bonding and Molecular Geometry
 - Unit 4: Solids, Liquids, and Intermolecular Forces
 - Unit 5: Thermodynamics and Thermochemistry
 - Unit 6: Equilibrium

Academic Integrity

Acts of academic dishonesty, including but not limited to cheating, plagiarism, falsifying research data or results or assisting others to do the same will be cause for sanction up to and including reduction in grade, failure of course or removal from class. Repeat offenses may result in additional sanctions.

For more information, refer to the NDSCS College Catalog under [Academic and College Policies and Procedures](#).

Integrity is an NDSCS core value and there is an expectation that all students, as members of the college community, adhere to the highest levels of academic integrity.

Dishonesty in class, laboratory, shop work or tests is regarded as a serious offense and is subject to disciplinary action by the instructor and dean of the respective division. For more information, refer to the NDSCS Student Planner or College Catalog under College Policies and Basic Regulations of Conduct.

Statement on use of Artificial Intelligence (AI)

The use of AI in this course is prohibited on any assignment, practice, written report, or exam. If you chose to use AI as a REVIEW tool only, that is allowed.

ADA Statement

NDSCS is committed to creating a learning environment that meets the needs of its diverse student body. If you anticipate or experience any barriers to learning in this course, please discuss your concerns with the instructor. If you have a disability and require accommodation, contact the Accessibility Coordinator at NDSCS.Accessibility@ndscs.edu or 701-671-2623 as soon as possible in the semester. Student Accessibility Services is located in Old Main 230. The Accessibility Coordinator will send instructors notice of approved accommodations. If you have already been approved for accommodations, you are encouraged to talk with your instructor to discuss arrangements to implement your accommodations.

Equal Opportunity Statement

North Dakota State College of Science is an equal opportunity employer and equal opportunity educator. NDSCS is fully committed to equal opportunity in employment decisions and educational programs and activities. All practices are in compliance with all applicable federal and state laws, for all individuals without regard to age, color, gender identity/expression, genetic information, marital status, national or ethnic origin, physical and mental ability status, public assistance status, race, religion, sex, sexual orientation, familial or parental status, status as a U.S. veteran/service member, or participation in lawful activity off the employer's premises during nonworking hours which is not in direct conflict with the essential business-related interests of the employer.

For more information, refer to the NDSCS College Catalog under [Non-Discrimination Statement and Equal Opportunity Policy](#).

Continuity of Instruction

NDSCS is committed to the continuity of instruction in the event of an emergency disruption that may result in the suspension of activities, including in-person classes at NDSCS. NDSCS is committed to preparing for any significant operational disruption or closure, which could result from flooding, weather, medical emergency, campus evacuation or other emergency.

An emergency closing of the College, campus closure, and/or suspension of in-person classes does not equate into a suspension of instruction. Faculty contract days remain in effect, though the means of instructional delivery may change.

All communications and updates are sent out in official College email and posted at NDSCS.edu

Land Acknowledgement Statement

NDSCS acknowledges that we occupy the sacred ancestral lands of the First Nations cultures of North Dakota. Without them, we would not have access to our gathering, dialogue, and learning spaces.

Developed/Revised (Date): August 2025