



PENSACOLA STATE COLLEGE

Introduction to Chemistry – Section Syllabus

CHM 1020, Section P1136

Fall 2025, Session A

Instructor: Kathryn Cavanaugh, Ph.D.

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Final Exam Date: TBD

Last Date of Drop/Add: August 22, 2025

Last Date for Student to Withdraw: November 4, 2025

Course Description: This course provides students with an introduction to chemical principles and applications for the non-science major. Students will engage in problem solving and critical thinking while applying chemical concepts. Topics will include the scientific method of problem solving, classification of matter, atomic theory, the periodic table, gases, chemical reactions, energy, and chemical bonds.

Class Meeting Time: M_W | 9:30 AM - 10:45 AM

Class Location: Pensacola Campus, Building 17, Room 1774

Semester Hours: 3 credit hours

Semester Offered: Fall, Spring, Summer

Course Designations: **College Transfer.** Meets AA General Education Core, Natural Sciences (Physical Sciences) requirement.

General Education Core Course Standard: Per Florida Statute 1007.25, "Natural science courses must afford students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena."

Required Textbooks and Instructional Materials: Chemistry 2e Open Stax, 9781947172623, ALEKS 18 week code

Methods of Evaluation: At minimum, the instructor will cover content which aligns with statewide and institutional learning outcomes for the course. The instructor will measure student performance using the following:

Grade calculation: Your final grade is based on your (1) 3 one-hour exams, (2) homework, and (3) cumulative final exam grades.

Points break-down:

Homework	100 pts
One-hour exams	300 pts
Final exam	100 pts
Total	500 pts

Grade Point Average: The sum of all points possible in Homework, One-hour exams & Cumulative final exam is 500. The letter grade for this course will be determined by your earned overall % score, using the scale given below. Curving will not be done.

A ≥ 90 % > **B+** ≥ 85 % > **B** ≥ 80 % > **C+** ≥ 75 % > **C** ≥ 70 % > **D+** ≥ 65 % > **D** ≥ 60 % > **F**

Student Expectations: Students enrolled in this course can expect the following:

1. Clearly identified course objectives;
2. Productive class meetings;
3. A positive learning environment;
4. Opportunities for appropriate student participation;
5. Effective instruction;
6. Positive and appropriate interactions;
7. Assistance with meeting course objectives during and beyond class hours;
8. Evaluation of student performance and appropriate and timely feedback; and
9. Clear and well-organized instruction.

Course Learning Outcomes:

1. Utilize metric units of measure for problem solving and describing chemical reactions.
2. Identify forms of energy and know units in which energy is measured.
3. Describe the properties of matter and the classes which occur: mixtures, pure chemical substances, compounds, elements.
4. Identify chemical symbols for about 50 important elements.
5. Understand the nature of changes which occur in matter and their classification as chemical or physical.
6. Know about the development of atomic theory and understand the arrangement of protons, neutrons, and electrons in atoms, and the relative size and mass of atoms.
7. Understand how the arrangement of electrons controls the chemical properties of atoms.
8. Understand the arrangement of Periodic Table of Elements and predict the properties of elements based on their location in the table.
9. Discuss the principles of chemical bonding (covalent and ionic) and be able to show electron arrangements in ionic and molecular compounds.
10. Write correct formulas for named compounds.
11. Utilize chemical equations to describe changes and be able to write balanced chemical equations.
12. Apply the concept of a mole to calculate quantities of substances involved in chemical changes.
13. Describe basic characteristics of acids and bases.

General Education Student Learning Outcomes:

Critical Thinking: The student analyzes, evaluates, and, if necessary, challenges the validity of ideas, principles, or data in order to develop informed opinions, probable predictions, or defensible conclusions.

Scientific and Mathematical Literacy: The student properly identifies and applies scientific or mathematical principles and methods.

Information Literacy: The student effectively locates, evaluates, and applies information from a variety of sources.

Academic Dishonesty Statement: Pensacola State College is committed to upholding the highest standards of academic conduct. All forms of academic dishonesty, to include plagiarism and cheating, are prohibited. Penalties for academic dishonesty include but are not limited to one or more of the following: the awarding of no credit on the assignment, a reduction in the course grade, or the assignment of a final course grade of F and removal from the course. See the *College Catalog* for more details:

<https://catalog.pensacolastate.edu/content.php?catoid=2&navoid=47#academic-honesty>

Student Email Accounts: Pensacola State College provides an institutional email account to all students enrolled in courses for credit. This institutional email account is the official method of communication, and students must use this account when communicating with the College. In cases where companion software is used for a particular class, email may be exchanged between instructor and student using the companion software.

Flexibility: It is the intention of the instructor to accomplish the objectives specified in the course syllabus. However, circumstances may arise which prohibit the fulfilling of this endeavor. Therefore, this syllabus is subject to change. When possible, students will be notified of any change in advance of its occurrence.

ADA Statement: Students with a disability that qualifies under the American with Disabilities Act Amendments Act of 2008 (ADAAA) must self-identify with the Student Resource Center for ADA Services (SRC/ADA). Disabilities covered by the ADAAA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact SRC/ADA if they are not certain whether a medical condition/disability qualifies. SRC/ADA is located on the Pensacola campus in building 6, room 603, ADA-services@pensacolastate.edu, 850-484-1637. Students may also complete the online intake form in the ADA Services app within the PSC apps dashboard.

Equity Statement: Pensacola State College does not discriminate against any person on the basis of race, ethnicity, national origin, color, gender/sex, age, religion, marital status, pregnancy, disability, sexual orientation, gender identity, or genetic information in its educational programs, activities, or employment. For inquiries regarding Title IX and the College's nondiscrimination policies, contact the Dean of Students at (850) 484-1759, Pensacola State College, 1000 College Blvd., Pensacola, Florida 32504.

Security Statement: Pensacola State College is committed to encouraging all members of the College community to be proactive in personal safety measures. In case of emergency, students should ensure that they are aware of the building exit closest to each of their classrooms, as well as all alternative building exits in case circumstances require using a different route.

Emergency Statement: In the case of severe weather or other emergency, the College administration maintains communication with appropriate state and local agencies and makes a determination regarding the cancellation of classes. Notices of cancellation will be made through the College's PSC Alert system and on the College's website.