PENSACOLA STATE COLLEGE

SYLLABUS
Introduction to Chemistry
CHM1020-D9327
Spring 2026, Session A

Instructor: Dr. Domenick Grasso
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Last Date of Drop/Add: January 15, 2026
Last Date for Student to Withdraw: April 6, 2026
Final Exam Date: TBD

Class Meeting Time: Online (asynchronous)
Class Location: Canvas

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.
Credit Hours: 3 credit hours
Semesters 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, Open Stax, 9781947172623, 2nd edition (Ch. 1-9)
Zero Textbook Cost (ZTC)
The educational materials used in this course, including textbooks and ancillary materials, are intended for educational purposes only. All opinions represent those of the author(s) and not necessarily those of Pensacola State College, or the instructor.

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:
1. 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.
2. Scientific and Mathematical Literacy: The student properly identifies and applies scientific or mathematical principles and methods.
3. Information Literacy: The student effectively locates, evaluates, and applies information from a variety of sources.

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:

Grading: To receive maximum credit you must show all of your work on paper with corresponding units. Numerical answers must have the correct number of significant digits.
• Homework (HW) is worth 10 points each. Exams are worth 100 points each. The lowest HW and exam will be dropped. Total points in this course will be 440.

Grading Scale: A ≥ 90 %, B+ ≥ 85 %, B ≥ 80 %, C+ ≥ 75 %, C ≥ 70 %, D+ ≥ 65 %, D ≥ 60 %, F < 60 %

Instructor Requirements:

Student Assignments, Assessments, and Grading Calculation	
Reading Assignments: Chapters 1-9 Flowers P, et. al. Chemistry: Atoms First 2e, Openstax, 2019.	
Homework	140 pts
All homework material is from Chemistry: Atoms First 2e	
Tests	300 pts
All tests assessment material is from Chemistry: Atoms First 2e	
Total	440 pts

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.

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: Academic Integrity

ADA Statement: Students with a disability that falls under the Americans with Disability Act Amendments Act of 2008 or Section 504 of the Rehabilitation Act should contact the Student Resource Center for ADA Services to discuss academic accommodations. Appropriate academic accommodations are determined on an individual basis with careful consideration of the course learning outcomes and the documentation of the disability. For more information, students should visit the Student Resource Center for ADA Services on the Pensacola campus in building 6, room 603; call 850-484-1637; email ADAservices@pensacolastate.edu; or complete the online intake form in the ADA Services app within the MyPSC apps dashboard.

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.

Flexibility Statement: 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.

Non-Discrimination Statement: Pensacola State College does not discriminate against any person on the basis of race, color, national origin, sex, disability, age, ethnicity, religion, marital status, pregnancy, sexual orientation, gender identity or genetic information in its programs, activities, and employment. For inquiries regarding the College's nondiscrimination policies, contact the Executive Director of Equal Opportunity Compliance, 1000 College Blvd., Building 5, Pensacola, Florida 32504, 850.484.1759.

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.

Student Email Accounts: Pensacola State College provides an institutional email account to all students enrolled in courses for credit. PirateMail is the official method of communication, and students must use PirateMail 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.