



PENSACOLA STATE COLLEGE

SYLLABUS

General Chemistry I

CHM1045-M1018

Spring 2026, Session A

Instructor: Dr. Kathryn Cavanaugh

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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: Monday, Wednesday | 11:00 AM - 12:15 PM

Class Location: Milton Campus, Bldg. 4300, Room 4315

Prerequisites: Appropriate math placement score or completion of MAT 1033 with grade of C or better.

Corequisites: CHM 1045L

Course Description: This course is designed for students pursuing careers in the sciences or who need a more rigorous presentation of chemical concepts than is offered in an introductory course. Students will engage in problem solving and critical thinking while applying chemical concepts. Topics will include the principles of chemistry including the atomic theory, electronic and molecular structure, measurement, stoichiometry, bonding, periodicity, thermochemistry, nomenclature, solutions, and the properties of gases.

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:

General Chemistry; Aleks, McGraw-Hill, 18 week 9781265357252, 52 week 9781265364458, Atoms First 2e; Paul Flowers, et al.; 978-1-947172-647; 2nd; Openstax; 2019 (Chapters 1-9)

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. Name and develop formulas for chemical compounds.
2. Solve a variety of chemical problems using equations and/or dimensional analysis.
3. Read, write, balance and interpret a chemical equation.
4. Describe the laws and theories relating to the behavior of gases.
5. Discuss energy as it relates to chemical and other processes.
6. Understand the laws and theories relating to the structure of the atom and how this relates to the Periodic Table.
7. Visualize and draw molecular structures and bonding and utilize the concepts in basic chemical reactions.

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:

Grade calculation: Your final grade is based on your (1) 3 chapter tests, (2) homework, and (3) final exam grade.

Points break-down:

In class tests	300 pts [100 pts. ea.]
homework	100 pts
final exam	200 pts
	600 pts

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

Instructor Requirements:

Student Assignments, Assessments, and Grading Calculation	
Reading Assignments: Chapters 1-9 Flowers P, et. al. Chemistry: Atoms First 2e, Openstax, 2019.	
Homework	18.18%
All homework material is from Chemistry: Atoms First 2e	
Quiz	9.09%
All quiz assessment material is from Chemistry: Atoms First 2e	
Tests	72.73%
All tests assessment material is from Chemistry: Atoms First 2e	
Total	100%

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, ethnicity, religion, sex (as defined by applicable federal and state law), national origin, age, disability, genetic information, pregnancy, or marital status in its educational programs, activities, or employment. For inquiries regarding the College's nondiscrimination policies, contact the Civil Rights Compliance Officer 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.

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.