

Pensacola State College Section Syllabus  
CHM 1045 General Chemistry I

**Instructor:** Vasanth Ramachandran  
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**Credits:** 3 cc

**Prerequisites:** CHM 1020 or CHM 1025 or one year high school chemistry.

**Corequisites:** MAC 1105, CHM 1045L.

**Course Description:** Introduces the basic principles in chemistry with emphasis on scientific measurement, atomic and molecular structure, periodic properties, chemical reactions, stoichiometry, and kinetic molecular theory of gases. Mastery of basic algebra skills is essential for successful completion of this course.

**Offered:** FA, SP, SU.

**Distribution:** Meets AA General Education Core, Natural Sciences (Physical Sciences) requirement.

**Textbooks:**

Atoms First 2e; Paul Flowers, et al.; 978-1-947172-63-0; 3rd; Openstax; 2019

**Supplemental Materials:** None

**Special Requirements:**

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.

**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.

## 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.

## Methods of Evaluation:

Grade calculation: Your final grade is based on your (1) 4 one-hour exams, (2) homework, and (3) cumulative final exam grades.

Points break-down:

|                |                |
|----------------|----------------|
| Homework       | 100 pts        |
| One-hour exams | 400 pts        |
| Final exam     | 100 pts        |
| <b>Total</b>   | <b>600 pts</b> |

## Grade Point Average:

The sum of all points possible in Homework, One-hour exams & Cumulative final exam is **600**. 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 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.

## 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 falls under the Americans with Disability Act or Section 504 of the Rehabilitation Act, it is the responsibility of the student to notify Student Resource Center for ADA Services to discuss any special needs or equipment necessary to accomplish the requirements for this course. Upon completion of registration with the Student Resource Center for ADA Services office, specific arrangements can be discussed with the instructor.

**Equity 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 Institutional Equity and Student Conduct, 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.

**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.