

JAMESTOWN COMMUNITY COLLEGE
State University of New York
INSTITUTIONAL COURSE SYLLABUS

Course Title: General Chemistry 1 Lecture

Course Abbreviation and Number: CHE 1551 Credit Hours: 3 Course Type: LR

Course Description: General Chemistry I provides a foundational understanding of chemical principles and their applications. Topics include atomic and molecular structure, the periodic table, stoichiometry, chemical bonding, thermochemistry, gases, and the properties of solids, liquids, and solutions. Emphasis is placed on problem-solving, critical thinking, and the development of quantitative reasoning skills. This course is designed for science majors and serves as a prerequisite for advanced chemistry courses, or those students who need a strong foundational chemistry knowledge for an advanced degree.

Prerequisite: High School Chemistry or CHE 1500 (or higher); Eligibility: ENG 1510 without support or Corequisite: ENG 1510 with support and Corequisite: MAT 1590 or Eligibility: MAT 1600; Corequisite: CHE 1552

General Education Requirements Met:

SUNY

Natural Sciences

JCC

Scientific Reasoning

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Demonstrate proficiency in chemical nomenclature, symbolism, chemical bonding and the periodic table.
2. Understand and analyze chemical reactions and processes.
3. Integrate Mathematical Tools to Solve Chemical Problems.
4. Application of scientific data, concepts, and models in one of the natural sciences. [SUNY Gen Ed – Natural Sciences SLO 2]

Topics Covered:

- Atomic Theory
- Electron Configuration
- Periodic Table
- Chemical Bonding
- Molecular Geometry
- States of Matter
- Chemical Formulas and Equations
- Stoichiometry
- Aqueous Solutions and Reactions
- Thermochemistry
- Gases
- Thermodynamics

Information for Students:

- Expectations of Students
 - [Civility Statement](#)
 - [Student Responsibility Statement](#)
 - [Academic Integrity Statement](#)
- Accessibility Services: <https://www.sunyjcc.edu/accessibility>
- Get Help: <https://www.sunyjcc.edu/gethelp>
- Emergency closings: <https://www.sunyjcc.edu/jccalert>
- Course grades are determined by the instructor based on a combination of factors, including but not limited

to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

Letter Grade	A	B+	B	C+	C	D+	D	F
Numerical Grade	4.0	3.5	3	2.5	2	1.5	1	0

- Veterans and active-duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

Effective Term: Fall 2026