

**JAMESTOWN COMMUNITY COLLEGE**  
**State University of New York**

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**INSTITUTIONAL COURSE SYLLABUS**

**Course Title:** Allied Health Chemistry

**Course Abbreviation and Number:** CHE 1530

**Credit Hours:** 3

**Course Type:** Lecture

**Course Description:** Students will consider selected basic concepts from inorganic, organic, and biological chemistry which will be applied to allied health and biological fields. Topics include matter and measurements, chemical bonds and reactions, redox, states of matter, acids and bases, organic functional groups, and common macromolecules in biological systems. The course is for students with little or no chemistry background who are pursuing a degree in an allied health field.

**Prerequisite/Corequisite:** ENG 1510; **Eligibility:** college level math (or prerequisite/corequisite MAT 0550).

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Apply knowledge of atomic/molecular structure and functional groups to classify ionic and organic compounds, including their role in the human body.
  2. Identify and understand the four main types of biomolecules (carbohydrates, proteins, lipids, and nucleic acids).
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**Topics Covered:**

- Metric system
  - Atomic structure and bonding
  - Chemical formulas and reactions
  - Oxidation-reduction reactions
  - States of matter
  - Solutions
  - Acids, bases, and salts
  - Organic Chemistry
  - Introduction to carbon and its bonding and functional groups
  - Alkanes and derivatives, Unsaturated hydrocarbons, aromatic hydrocarbons, alcohols, thiols, phenols, ethers, aldehydes, ketones, carboxylic acids, esters, amines, and amides
  - Introduction Biochemistry
  - Carbohydrates, lipids, proteins, and nucleic acids
  - ATP and energy transfer in reactions
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**Information for Students**

- Expectations of Students
    - [Civility Statement](#)
    - [Student Responsibility Statement](#)
    - [Academic Integrity Statement](#)
  - [Accessibility Services](#)  
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
  - [Get Help: JCC & Community Resources](#)
  - [Emergency Closing Procedures](#)
  - Course grade is 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:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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  - 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.
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**Effective Date:** Fall 2021