

“A chemist requires no special talent, I’m glad to say. Anyone can do it, with hard work.” (Roald Hoffman, 1981 Nobel Prize for chemistry)

DE Chemistry- 100

This course covers an introduction to the basic concepts of chemistry. The topics covered include: metric system and numbers, chemical view of matter, periodic table of elements, atomic theory, chemical bonds, chemical equations, stoichiometry, solutions and organic chemistry. CHEM100 is a course that explores the physical and chemical properties of common chemicals and compounds.

This course fulfills the general education requirement for a physical science with laboratory at most four-year colleges and universities. A considerable amount of out-of-class study is required.

Units of Study

Unit 1 – Properties of Matter

- Topics include: Metric System, Unit Conversions, Significant Figures, Matter vs. Energy, Density, Atomic Structure, Periodic Table Organization, and Chemical Naming

Unit 2 – Chemical Reactions

- Topics include: Chemical Composition, Moles and Mole Conversions, Balancing Equations, Reaction Types, and Stoichiometry with Limiting Reactants

Unit 3 – Chemical Bonding, Gases & Phase Changes

- Topics include: Electron Configurations, Atomic Bonding, VSEPR Modeling, Phases Changes and Intermolecular Forces

Unit 4 – Solutions & Equilibrium

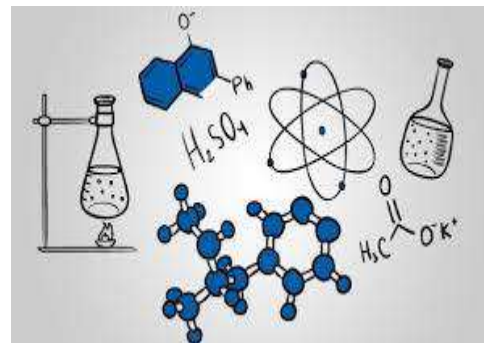
- Topics include: Solution Types, Molarity and Concentration, Acids and Bases, Chemical Equilibrium and Le Chatelier's Principle, Electrolytes, Redox Reactions and Organic Chemistry

Are there any prerequisites for DE Chemistry-100? There are no prerequisites for DE Chemistry-100. However, this is a college level course, and a strong background in the general chemistry topics covered in the 10th grade chemistry course is recommended.

Is there a DE exam that I need to take at the end of the course to get credit for the class? No. As long as you keep a passing grade in the course throughout the semester, you will receive college credit for the course.

What specific skills do high school students need to have to be successful in DE Chemistry-100? Ability to read, problem solve and think critically. Strong math (algebra) skills are needed for problem solving. Manage time wisely. Collaborate with other students and advocate for himself/herself.

Teacher: Kelly Carrillo



More Information

Difficulty

College course content, but in a high school setting (including lots of support and guidance)

Average Workload

During class time students will either be participating in taking notes during a lecture or performing lab experiments. Time outside of class for online lectures and practice problems is REQUIRED. Typically about 2-4 hours of outside classwork is needed per week.

Typical Schedule

This course is designed for NON-science majors. Those interested in majoring in science are encouraged to take the AP course.

GPA Impact

Weighted GPA average of 10 points (on average, NOT on the grade).

Why take DE Chemistry-100?

- Gain a new and exciting view of the atomic world!
- You will make relevant connections to phenomena that takes place in the world today
- Get the foundational skills that will prepare you for future college classes
- **Earn college credit in high school without having to take an AP exam!**