

# Chemistry, Part 2 (CHEM-043-300-001)

## Chemistry, Part 2 Syllabus

### Course Learning Outcomes

The chemistry knowledge for this course is based on these main topics.

- Properties of solutions, including acids and bases.
- Rates of reactions and reaction equilibrium.
- Properties and reactions of gases.
- Oxidation and reduction reactions.
- Nuclear reactions and radiation.

When successfully completing this course, the student will be able to do the following:

- Organize the elements that make up our earth and our atmosphere.
- Solve, in a common-sense fashion, chemical problems dealing with results from an experiment and/or reaction.
- Discuss atoms—their makeup, what they do, and how they do it.

The 21st Century Skill for this course is Critical Thinking: Problem Solving. The attribute for this course is diligence.

### Prerequisites

Successful completion of Chemistry, Part 1 or equivalent.

### Course Materials

All the materials you need are included in the course. You do not have to buy any additional textbooks.

# **Assignments**

You will complete these assignments during the course.

## **Self-Checks**

Self-checks are ungraded, self-scored activities that provide practice with the course content. These help you see what concepts you understand and where to focus energy when studying.

## **Module Notes**

Module notes will help you identify the most important parts of each lesson and are an effective study guide for quizzes and the final exam. These notes will be submitted with the module assignments.

## **Module Assignments**

The module assignments will include module notes and a variety of other learning activities, including planning and carrying out two lab experiences. The lab experiences may be done in a home kitchen or using an online simulation. These assignments are teacher graded.

## **Homework**

The homework activities are computer-graded, self-scoring activities that show mastery of important concepts.

## **Unit Quizzes**

Unit quizzes are an opportunity for you to show what you have learned in the unit. They are multiple choice, computer-graded assessments.

## **KSA: Knowledge, Skills, and Attributes**

As you complete the course assignments, you will increase your knowledge, improve your skill, and develop in an attribute.

### **Knowledge: Chemistry**

In this course, knowledge refers to the subject matter and content you will learn while taking this course.

### **21st Century Skill: Critical Thinking—Problem Solving**

As you complete the assignments for this course, you will be gaining skills in Problem Solving. This skill is part of Critical Thinking. If you reach the target competency in this skill, you will earn a 21st Century Skills micro-credential, or digital badge. This micro-credential can be shared on social media, included on your resume, and discussed on college or job applications. Micro-credentials are an effective way to share your skills with prospective employers.

### **Attribute: Diligence**

This course focuses on developing the attribute of diligence in the context of Chemistry. An attribute is a characteristic or trait. You will complete Module Assignments and Self-Reflections where you can learn about and write reflections about your own diligence.

## **Exams**

You will complete one proctored final exam for this course. See the Exam Preparation page for details.

# Grading

Your grade in this course will be based on these assignments and exams:

Assignment or Exam	Grading	Percent of Total Grade
9 Homework	Computer	20%
8 Assignments	Instructor	35%
5 Unit Quizzes	Computer	20%
1 Final Project	Instructor	10%
1 Proctored Final Exam*	Computer	15%

\* You must pass the final exam with at least a 60% to earn credit for the course.

## Grade Scale

Your letter grade is calculated according to these percentages.

<b>A</b>	100% – 94%
<b>A-</b>	93% – 90%
<b>B+</b>	89% – 87%
<b>B</b>	86% – 84%

<b>B-</b>	82% – 80%
<b>C+</b>	79% – 77%
<b>C</b>	76% – 74%
<b>C-</b>	72% – 70%
<b>D+</b>	69% – 67%
<b>D</b>	66% – 64%
<b>D-</b>	62% – 60%
<b>F (fail)</b>	59% – 0%