Collapse all

Chemistry - Part 1

ATTENTION

Grading at the end of the semester can take 7 school days!
Submit your **last assignment two weeks** before your school's semester ends.

Lab Requirement

Chemistry is a Lab Science course; in order to satisfy the National Standards for a Chemistry course, two components are required. The first is our online course, and the second is the labs. The lab kit that accompanies this course has to be purchased separately--SVHS does not sell it. **You cannot pass this course without purchasing the kit and completing ALL the labs.**

Lab Kit Requirement

The kit should be purchased from Quality Science Labs (QSL) and will be delivered through the mail. SVHS and QSL have designed this kit to accompany this course. The same kit can be used for Part 2 of this course. Only one kit needs to be purchased for students taking Chemistry Part 1 and Part 2. **Order your lab kit from QSL**; at checkout, use the customer code: **svhs2691-17** to receive a **20% discount.**

Important - As the lab kit is delivered through the mail, and you are going to need it to complete unit 1, we recommend you **purchase it now**.

Lab Details and Descriptions

Detailed instructions for the wet labs are provided in the lab kit and on the Lab Assignment pages. You can see a summary description of the labs covered in this course.

Unpacking Your Lab Kit

How to Take This Course

Complete all the quizzes and the lab assignment in each unit. Once the quizzes for a unit are complete and your labs and assignments are submitted, you will have access to the unit test. We need to complete the labs before you attempt the unit test; questions in the test will relate to the Lab. You will have access to the final when all unit tests are complete, and your labs and assignments are graded.

Important: Allow a minimum of 3 school days for an assignment/lab to be graded. Read the full course instructions to understand the course grading.

SVHS
Welcome to Chemistry

Course Instructions

This is a Lab Science course, if you've taken courses with us before this one works slightly differently. Read the Course Instructions before you begin.

How This Course Works & Suggested Timeline TO BE UPDATED

Submitting Your Lab Assignments

Ask The Teacher

Meet your teacher for this course and ask a question.

Need help with the course? We offer online tutoring; find more details about it here.

MANDATORY QUIZ Receive a grade

You are required to take this quiz before you start the course. To prepare, read the course instructions and the "submitting your assignments" document, watch the video on the how this course works page and review the suggested timeline.

Unit 1: Observing Matter

This unit will introduce you to the study of Chemistry. The unit provides a brief overview of what Chemistry is all about and its importance. You will learn about important historical discoveries in Chemistry and the people who made these discoveries possible. You will get an introduction to physical and chemical properties, what they are, and their classifications. Along with physical and chemical properties, you will learn how matter is classified. You will also learn how to complete a chemistry lab formal writeup. These formal writeups become legal, scientific documents testifying to what you have completed in lab.

Unit 1 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Complete **ALL** the work in Unit 1 before moving to Unit 2.

1.1 Great Discoveries in Chemistry

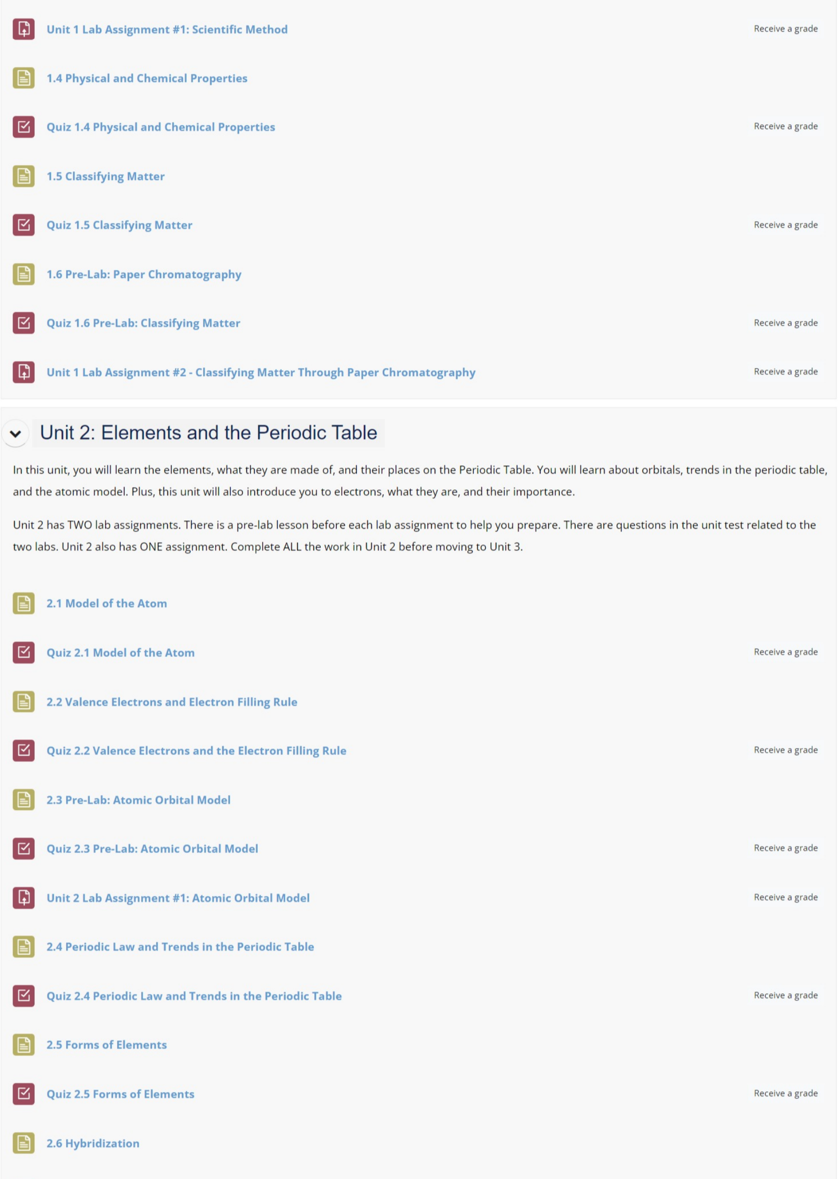
Quiz 1.1 Great Discoveries in Chemistry Receive a grade

1.2 Scientific Method and CRAAP

Quiz 1.2 Scientific Method and CRAAP Receive a grade

1.3 Pre-Lab: Scientific Method

Quiz 1.3 Pre-Lab: Scientific Method Receive a grade



Unit 1 Lab Assignment #1: Scientific Method	Receive a grade
1.4 Physical and Chemical Properties	
Quiz 1.4 Physical and Chemical Properties	Receive a grade
1.5 Classifying Matter	
Quiz 1.5 Classifying Matter	Receive a grade
1.6 Pre-Lab: Paper Chromatography	
Quiz 1.6 Pre-Lab: Classifying Matter	Receive a grade
Unit 1 Lab Assignment #2 - Classifying Matter Through Paper Chromatography	Receive a grade

Unit 2: Elements and the Periodic Table

In this unit, you will learn the elements, what they are made of, and their places on the Periodic Table. You will learn about orbitals, trends in the periodic table, and the atomic model. Plus, this unit will also introduce you to electrons, what they are, and their importance.

Unit 2 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Unit 2 also has ONE assignment. Complete ALL the work in Unit 2 before moving to Unit 3.

2.1 Model of the Atom	
Quiz 2.1 Model of the Atom	Receive a grade
2.2 Valence Electrons and Electron Filling Rule	
Quiz 2.2 Valence Electrons and the Electron Filling Rule	Receive a grade
2.3 Pre-Lab: Atomic Orbital Model	
Quiz 2.3 Pre-Lab: Atomic Orbital Model	Receive a grade
Unit 2 Lab Assignment #1: Atomic Orbital Model	Receive a grade
2.4 Periodic Law and Trends in the Periodic Table	
Quiz 2.4 Periodic Law and Trends in the Periodic Table	Receive a grade
2.5 Forms of Elements	
Quiz 2.5 Forms of Elements	Receive a grade
2.6 Hybridization	

Quiz 2.6 Hybridization	Receive a grade
2.7 PreLab: Hybridization of Orbitals	
Quiz 2.7 Pre-Lab: Hybridization	Receive a grade
Unit 2 Lab Assignment #2: Hybridization of Orbitals	Receive a grade
Unit 2 Assignment: Adopt an Element	Receive a grade

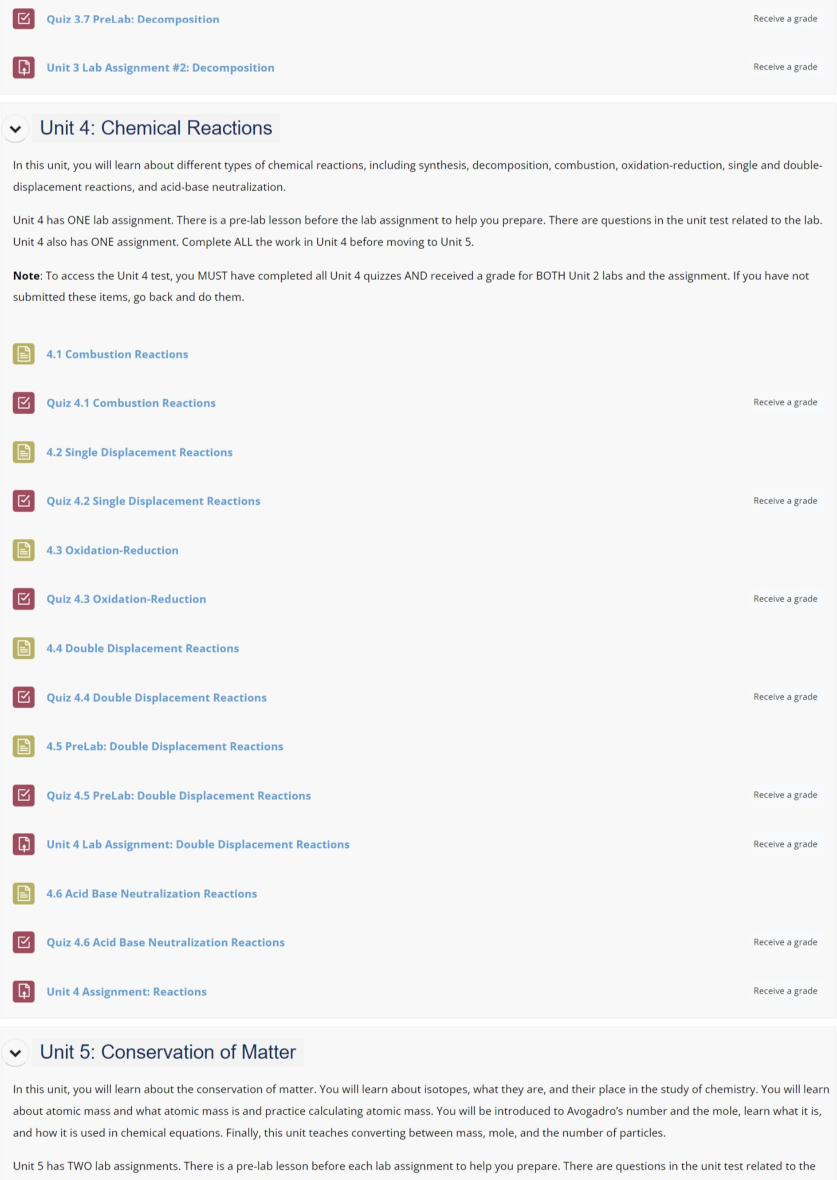
Unit 3: Chemical Compounds and Bonding

This unit introduces you to chemical compounds and bonding. You will learn what chemical compounds are, how they are formed, and their makeup. This includes looking at ionic and covalent compounds and various types of chemical bonds. You will learn how to write chemical formulas and balance chemical equations.

Unit 3 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Complete ALL the work in Unit 3 before moving to Unit 4.

Note: To access the Unit 3 test, you MUST have completed all Unit 3 quizzes AND received a grade for BOTH Unit 1 labs. If you have not submitted your Unit 1 labs, go back and do them.

3.1 Types of Bonds - Ionic and Covalent	
Quiz 3.1 Types of Bonds	Receive a grade
3.2 PreLab: Properties of Ionic and Covalent Compounds - Electrical Conductivity	
Quiz 3.2 PreLab: Properties of Ionic and Covalent Compounds	Receive a grade
Unit 3 Lab Assignment #1: Electrical Conductivity	Receive a grade
3.3 Writing Chemical Formulas for Ionic Compounds & Polyatomic Ions	
Quiz 3.3 Writing Chemical Formulas for Ionic & Polyatomic Ions	Receive a grade
3.4 Writing Chemical Formulas for Molecular Compounds, Polar and Nonpolar Molecules	
Quiz 3.4 Polar and Nonpolar Molecules and Writing Chemical Formulas for Molecular Compounds	Receive a grade
3.5 Writing and Balancing Chemical Equations	
Quiz 3.5 Writing & Balancing Chemical Equations	Receive a grade
3.6 Synthesis and Decomposition Reactions	
Quiz 3.6 Synthesis and Decomposition Reactions	Receive a grade
3.7 PreLab: Decomposition	



Quiz 3.7 PreLab: Decomposition	Receive a grade
Unit 3 Lab Assignment #2: Decomposition	Receive a grade

Unit 4: Chemical Reactions

In this unit, you will learn about different types of chemical reactions, including synthesis, decomposition, combustion, oxidation-reduction, single and double-displacement reactions, and acid-base neutralization.

Unit 4 has ONE lab assignment. There is a pre-lab lesson before the lab assignment to help you prepare. There are questions in the unit test related to the lab. Unit 4 also has ONE assignment. Complete ALL the work in Unit 4 before moving to Unit 5.

Note: To access the Unit 4 test, you MUST have completed all Unit 4 quizzes AND received a grade for BOTH Unit 2 labs and the assignment. If you have not submitted these items, go back and do them.

4.1 Combustion Reactions	
Quiz 4.1 Combustion Reactions	Receive a grade
4.2 Single Displacement Reactions	
Quiz 4.2 Single Displacement Reactions	Receive a grade
4.3 Oxidation-Reduction	
Quiz 4.3 Oxidation-Reduction	Receive a grade
4.4 Double Displacement Reactions	
Quiz 4.4 Double Displacement Reactions	Receive a grade
4.5 PreLab: Double Displacement Reactions	
Quiz 4.5 PreLab: Double Displacement Reactions	Receive a grade
Unit 4 Lab Assignment: Double Displacement Reactions	Receive a grade
4.6 Acid Base Neutralization Reactions	
Quiz 4.6 Acid Base Neutralization Reactions	Receive a grade
Unit 4 Assignment: Reactions	Receive a grade

Unit 5: Conservation of Matter

In this unit, you will learn about the conservation of matter. You will learn about isotopes, what they are, and their place in the study of chemistry. You will learn about atomic mass and what atomic mass is and practice calculating atomic mass. You will be introduced to Avogadro's number and the mole, learn what it is, and how it is used in chemical equations. Finally, this unit teaches converting between mass, mole, and the number of particles.

Unit 5 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Complete ALL the work in Unit 5 before moving to Unit 6.

Note: To access the Unit 5 test, you MUST have completed all Unit 5 quizzes AND received a grade for BOTH Unit 3 labs. If you have not submitted your Unit 3 labs, go back and do them.

5.1 Avogadro's Number and the Mole

Quiz 5.1 Avogadro's Number and the Mole Receive a grade

5.2 Formula Mass

Quiz 5.2 Formula Mass Receive a grade

5.3 PreLab: Analysis of Hydrates

Quiz 5.3 PreLab: Analysis of Hydrates Receive a grade

Unit 5 Lab Assignment #1: Analysis of Hydrates Receive a grade

5.4 Isotopes and Average Atomic Mass

Quiz 5.4 Isotopes and Average Atomic Mass Receive a grade

5.5 Converting Between Mass, Moles and Number of Particles

Quiz 5.5 Converting Between Mass, Moles and Number of Particles Receive a grade

5.6 PreLab: Mole Ratio/ Stoichiometric Ratio

Quiz 5.6 PreLab: Mole Ratio Receive a grade

Unit 5 Lab Assignment #2: Mole Ratio Receive a grade

Unit 6: Chemical Proportions in Compounds

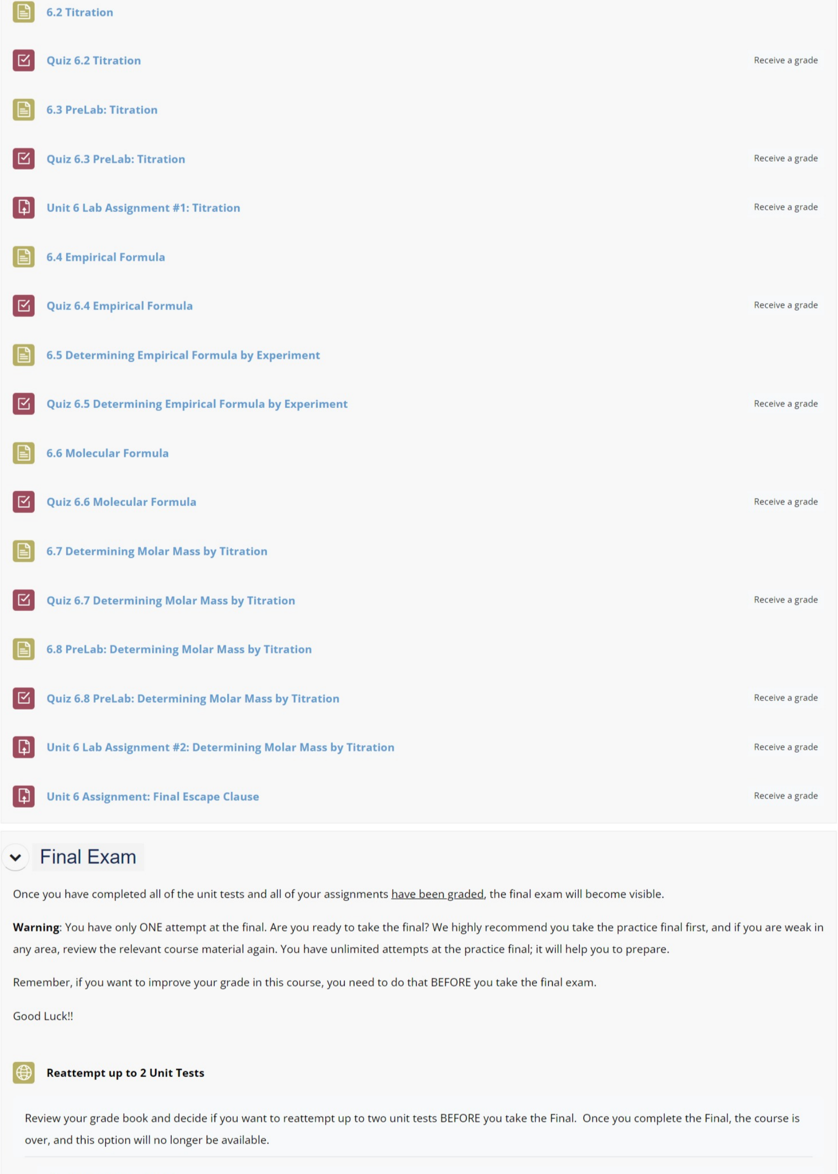
In this unit, you will learn about the chemical proportions in compounds. You will learn about chemical composition and how to calculate the percentage of composition. You will review the empirical formula and learn its importance in the study of chemistry. You will review the molecular formula and how to determine and calculate empirical and molecular formulas from chemical equations. You will also learn to titrate unknown substances and continue to practice converting between units.

Unit 6 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Unit 6 also has ONE assignment.

Note: To access the Unit 6 test, you MUST have completed all Unit 6 quizzes AND received a grade for the Unit 4 lab and assignment. If you have not submitted them, go back and do them.

6.1 Percentage Composition

Quiz 6.1 Percentage Composition Receive a grade



6.2 Titration	
Quiz 6.2 Titration	Receive a grade
6.3 PreLab: Titration	
Quiz 6.3 PreLab: Titration	Receive a grade
Unit 6 Lab Assignment #1: Titration	Receive a grade
6.4 Empirical Formula	
Quiz 6.4 Empirical Formula	Receive a grade
6.5 Determining Empirical Formula by Experiment	
Quiz 6.5 Determining Empirical Formula by Experiment	Receive a grade
6.6 Molecular Formula	
Quiz 6.6 Molecular Formula	Receive a grade
6.7 Determining Molar Mass by Titration	
Quiz 6.7 Determining Molar Mass by Titration	Receive a grade
6.8 PreLab: Determining Molar Mass by Titration	
Quiz 6.8 PreLab: Determining Molar Mass by Titration	Receive a grade
Unit 6 Lab Assignment #2: Determining Molar Mass by Titration	Receive a grade
Unit 6 Assignment: Final Escape Clause	Receive a grade

Final Exam

Once you have completed all of the unit tests and all of your assignments have been graded, the final exam will become visible.

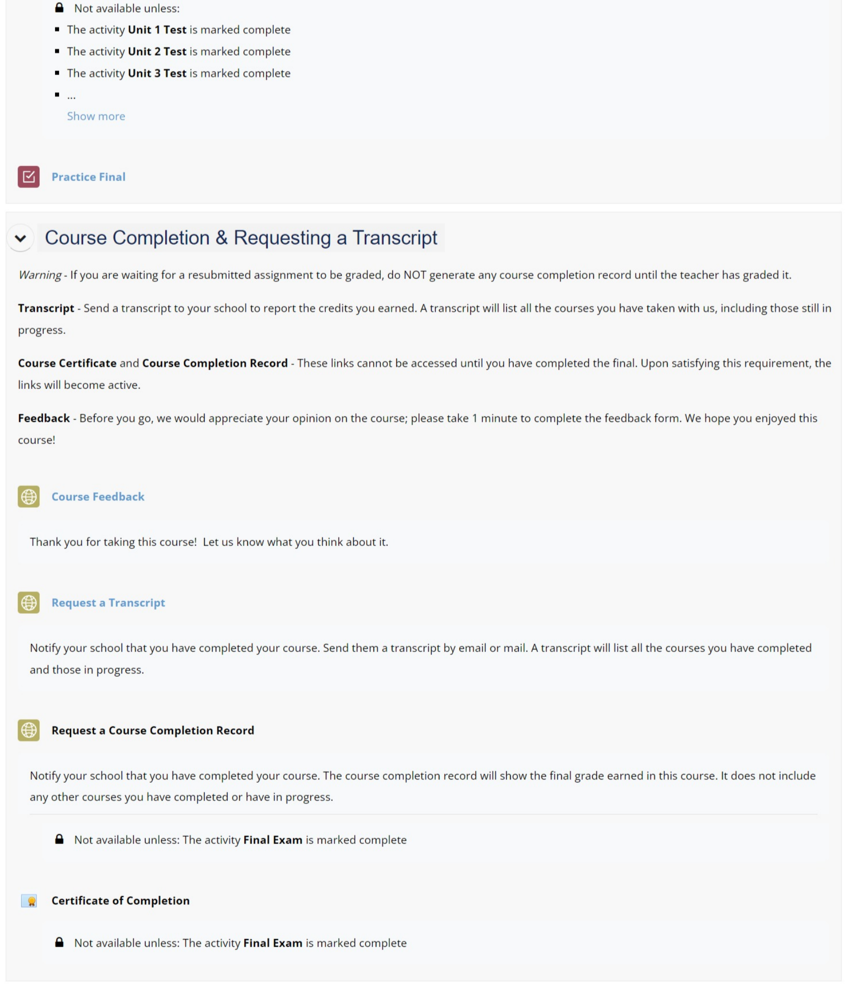
Warning: You have only ONE attempt at the final. Are you ready to take the final? We highly recommend you take the practice final first, and if you are weak in any area, review the relevant course material again. You have unlimited attempts at the practice final; it will help you to prepare.

Remember, if you want to improve your grade in this course, you need to do that BEFORE you take the final exam.

Good Luck!!

Reattempt up to 2 Unit Tests

Review your grade book and decide if you want to reattempt up to two unit tests BEFORE you take the Final. Once you complete the Final, the course is over, and this option will no longer be available.



🔒 Not available unless:

- The activity **Unit 1 Test** is marked complete
- The activity **Unit 2 Test** is marked complete
- The activity **Unit 3 Test** is marked complete
- ...

Show more

☑ **Practice Final**

Course Completion & Requesting a Transcript

Warning - If you are waiting for a resubmitted assignment to be graded, do NOT generate any course completion record until the teacher has graded it.

Transcript - Send a transcript to your school to report the credits you earned. A transcript will list all the courses you have taken with us, including those still in progress.

Course Certificate and **Course Completion Record** - These links cannot be accessed until you have completed the final. Upon satisfying this requirement, the links will become active.

Feedback - Before you go, we would appreciate your opinion on the course; please take 1 minute to complete the feedback form. We hope you enjoyed this course!

Course Feedback

Thank you for taking this course! Let us know what you think about it.

Request a Transcript

Notify your school that you have completed your course. Send them a transcript by email or mail. A transcript will list all the courses you have completed and those in progress.

Request a Course Completion Record

Notify your school that you have completed your course. The course completion record will show the final grade earned in this course. It does not include any other courses you have completed or have in progress.

🔒 Not available unless: The activity **Final Exam** is marked complete

Certificate of Completion

🔒 Not available unless: The activity **Final Exam** is marked complete