



This course supports the assessments for Organic Chemistry. The course covers 7 competencies and represents 2 competency units.

Introduction

Overview

Organic chemistry is the study of compounds that contain carbon. As you progress through this course, you will come to realize that organic compounds are everywhere. Do not be fooled into thinking organic chemistry is simple because it studies only compounds that contain carbon; there have been more than 10 million organic compounds discovered. Much of the study of organic chemistry is learning how to organize and group organic compounds so that you can predict their structure, behavior, and reactivity based on common bonds found within an organic compound.

Through successfully completing this course, you will show a high level of competence in the study of chemistry. You will be prepared to enter a secondary classroom and lead students in an organized and meaningful learning experience in their study of organic chemistry.

Teaching Dispositions Statement

Please review the [Statement of Teaching Dispositions](#).

Course Instructor Assistance

As you prepare to successfully demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you.

Successful students report that working with a course instructor is the key to their success. Course instructors are able to share tips on approaches, tools, and skills that can help you apply the content you're studying. They also provide guidance in assessment preparation strategies and troubleshoot areas of deficiency. Even if things don't work out on your first try, course instructors act as a support system to guide you through the revision process. You should expect to work with course instructors for the duration of your coursework, so you are welcome to contact them as soon as you begin. Course instructors are fully committed to your success!

Schedule an appointment with one of your course instructors by accessing their calendar here:

[Chemistry Team Calendar](#)

Chemistry@wgu.edu

Content Path

This course is provided through [the Organic Chemistry course](#) from Wiley Engage. The recommended content path is as follows:



- Introduction
- Module 1: Bonding and Acids and Bases
- Module 2: Alkanes and Cycloalkanes
- Module 3: Alkenes and Chirality
- Module 4: Haloalkanes, Alcohols, and Benzene
- Performance Task 1
- Module 5: Spectroscopy
- Module 6: Aldehydes and Ketones
- Performance Task 2

Learning Resources

The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to manually enroll in or independently acquire other resources. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

Organic Chemistry from Wiley Engage

Your primary learning resource for this course is [Organic Chemistry](#) from Wiley Engage. Follow the course content carefully, as it has been carefully selected to prepare you specifically for this performance assessment.

This resource provides access to the following e-text:

- Brown, W. H., & Poon, T. (2014). [Introduction to organic chemistry](#) (5th ed.). Hoboken, NJ: Wiley. ISBN-13 978-118-083383.

This organic chemistry text is designed for science majors and emphasizes the applications of organic chemistry to the world around you.

Introduction

Explore and Practice	Assess
Introduction in Wiley Engage's Organic Chemistry	After viewing the presentations, do you know what to expect on the performance tasks?

Bonding and Acids and Bases

Explore and Practice	Assess
Module 1 in Wiley Engage's Organic Chemistry	<p>This module is foundational to the entire course, and it directly supports task 1, prompts D, D1, and D2.</p> <p>This topic addresses the following competencies:</p> <ul style="list-style-type: none">• Competency 208.1.14: Molecular Structure



	<p>The graduate uses drawings and models to communicate and predict the structure and shape of organic molecules.</p> <ul style="list-style-type: none">• Competency 208.1.15: Acid-Base Reactions The graduate applies concepts of acid-base chemistry to determine the relative acidities of organic acids and the position of equilibrium in an acid-base reaction.
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Alkanes and Cycloalkanes

Explore and Practice	Assess
<p>Module 2 in Wiley Engage's Organic Chemistry</p>	<p>This module directly supports task 1, prompt C and provides foundational information for task 1, prompt A.</p> <p>This topic addresses the following competencies:</p> <ul style="list-style-type: none">• Competency 208.1.16: Nomenclature The graduate applies the IUPAC nomenclature to name simple organic molecules.• Competency 208.1.19: Organic Compounds The graduate analyzes properties and reactions of important organic compounds, including aromatic compounds.

Alkenes and Chirality

Explore and Practice	Assess
<p>Module 3 in Wiley Engage's Organic Chemistry</p>	<p>This module directly supports task 1, prompts A, A1, A2, and B1 and provides foundational information for task 2, prompt A.</p> <p>This topic addresses the following competencies:</p> <ul style="list-style-type: none">• Competency 208.1.16: Nomenclature The graduate applies the IUPAC nomenclature to name simple organic molecules.• Competency 208.1.17: Stereochemistry The graduate applies concepts of stereoisomers to understand and predict the product of reactions.• Competency 208.1.18: Organic Reactions The graduate applies reaction mechanisms to analyze organic reactions and synthesis problems.• Competency 208.1.19: Organic Compounds The graduate analyzes properties and reactions of



important organic compounds, including aromatic compounds.

Haloalkanes, Alcohols, and Benzene

Explore and Practice	Assess
Module 4 in Wiley Engage's Organic Chemistry	<p>This module directly supports task 1, prompts A, A1, B, and all parts of task 2 prompt A.</p> <p>This topic addresses the following competencies:</p> <ul style="list-style-type: none">• Competency 208.1.15: Acid-base Reactions The graduate applies concepts of acid-base chemistry to determine the relative acidities of organic acids and the position of equilibrium in an acid-base reaction.• Competency 208.1.16: Nomenclature The graduate applies the IUPAC nomenclature to name simple organic molecules.• Competency 208.1.18: Organic Reactions The graduate applies reaction mechanisms to analyze organic reactions and synthesis problems.• Competency 208.1.19: Organic Compounds The graduate analyzes properties and reactions of important organic compounds, including aromatic compounds.

Performance Task 1

Complete the following in [TaskStream](#):

- Organic Chemistry: Task 1

For details about this performance assessment, see the "Assessment" tab in this course.

Before submitting, check that you have covered all the requirements in the rubric. If you need help, contact the course instructor.

For more in depth information about this assessment, watch the [Rubric Walkthrough Presentation](#).

Spectroscopy

Explore and Practice	Assess
Module 5 in Wiley Engage's	This module directly supports task 2, prompts B and C.



Organic Chemistry	This topic addresses the following competency: <ul style="list-style-type: none">• Competency 208.1.10: Organic Lab Techniques The graduate applies instrumental methods of analysis to determine the structure of organic compounds.
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Aldehydes and Ketones

Explore and Practice	Assess
Module 6 in Wiley Engage's Organic Chemistry	This module directly supports task 2, prompt A. This topic addresses the following competencies: <ul style="list-style-type: none">• Competency 208.1.16: Nomenclature The graduate applies the IUPAC nomenclature to name simple organic molecules.• Competency 208.1.18: Organic Reactions The graduate applies reaction mechanisms to analyze organic reactions and synthesis problems.• Competency 208.1.19: Organic Compounds The graduate analyzes properties and reactions of important organic compounds, including aromatic compounds.

Performance Task 2

Complete the following in [TaskStream](#):

- Organic Chemistry: Task 2

For details about this performance assessment, see the "Assessment" tab in this course.

Before submitting, check that you have covered all the requirements in the rubric. If you need help, contact the course instructor.

For more in depth information about this assessment, watch the [Rubric Walkthrough Presentation](#).