You may notice that we've simplified this study plan. It's part of an ongoing effort to make it easier for you to directly access courseware.

**Introduction**

This course provides a broad overview of cellular biology, evolution, organisms, and ecology. It will help you become a better science teacher in the classroom.

**Getting Started**

Welcome to Principles of Biology!

In this course, key elements of biology, from the molecular level to ecosystems, are explored. Specifically, you will be introduced to macromolecules and cellular biology as well as genetics and the link to evolution. You will learn about plant and animal organismal biology, including how organisms interact with the environment. Additional important topics in ecology, such as population and community ecology and the effect of humans on the biosphere, are also covered.

For this course, you will use the MindTap learning platform, based on the 9th edition of the textbook *Biology: Concepts and Applications*. Inside Mindtap you will find embedded videos to watch, articles to read, images to study, and quizzes to check your knowledge. You will perform labs using the Science Methods LabPaq. Please request that this Labpaq be delivered to your home. Performing these labs helps you become a better science teacher by giving you hands-on experience with content. Your competency in this course will be demonstrated through a Performance Assessment, which consists of writing and submitting four Tasks in Taskstream.

Watch the following video for an introduction to this course:

*Note: To download this video, right-click the following link and choose "Save as...": [download video]*

**Competencies**

This course provides guidance to help you demonstrate the following 4 competencies:

- **Competency 204.2.1: Molecular and Cellular Biology**
  The graduate has a broad understanding of the important concepts in molecular & cellular biology.

- **Competency 204.2.2: Biology of Organisms**
  The graduate has a broad understanding of the important concepts related to the biology of organisms.

- **Competency 204.2.3: Ecology**
  The graduate has a broad understanding of important concepts of ecology.
• Competency 204.2.4: Evolution
  The graduate has a broad understanding of evolution and the history of life on Earth.

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. You should expect to work with course instructors for the duration of your coursework, so you are encouraged to contact them as soon as you begin. Course instructors are fully committed to your success!

Contact information for the biology course instructors is shown below. Their availability includes business hours, nights, and weekends.

Jackie Rahsaz
jackie.rahsaz@wgu.edu
1-877-435-7948 ext. 2058

Katie Flavin
katie.flavin@wgu.edu
1-877-435-7948 ext. 4082

Pacing Guide

Week 1

• Cellular Life (Background content - reference as needed)
• Chapter 8: DNA Structure and Function
• Write part A of Task 1: Gene Traits

Week 2

• Chapter 9: From DNA to Protein
• Chapter 10: Control of Gene Expression
• Chapter 15: Biotechnology
• Write part B of 1: Gene Traits
Week 3

- Chapter 12: Meiosis and Sexual Reproduction
- Chapter 13: Observing Patterns in Inherited Traits
- Chapter 14: Human Inheritance
- Write part C of Task 1: Gene Traits

Week 4

- LapPaq: Phenotype and Genotype
- Write part D of Task: Gene Traits
- **Submit Gene Traits task for evaluation**
- Write parts A-C of Task 2: Inherited Characteristics

Week 5

- Chapter 16: Evidence of Evolution
- Chapter 17: Processes of Evolution
- Write part D of Task 2: Inherited Characteristics
- **Submit Inherited Characteristics task for evaluation**

Week 6

- Chapter 21: Plant Evolution
- Chapter 25: Plant Tissues
- Chapter 26: Plant Nutrition and Transport
- Chapter 27: Plant Reproduction and Development
- **Write Task 3: Growth of Organisms and submit for evaluation**

Week 7

- Chapter 28: Animal Tissues and Organ Systems
- Chapter 42: Ecosystems
- **Complete Task 4: Ecosystems and submit for evaluation**

Week 8

- Chapter 43: The Biosphere
- Chapter 40: Population Ecology
- Chapter 41: Community Ecology
- Chapter 44: Human Effects on the Biosphere

**Learning Resource Tips**

The information in this section is provided to detail the resources available for you to use as you complete this course.
Overview

To get started, please click the "Launch Course" button.

Launch Course

Automatically Enrolled Learning Resources

You may be prompted to log in to the WGU student portal to access the resources.

Cengage MindTap Principles of Biology

The Cengage MindTap Principles of Biology learning resource is a customized, interactive resource especially designed to help you hone your skills in preparation for the Principles of Biology performance assessment. Begin with the START HERE section for a quick tutorial on using this resource, and use the Help feature (the question mark in the upper right corner of the MindTap screen) for further assistance, if needed.

The Cengage MindTap Principles of Biology learning resource utilizes the following e-text:


*Note: This e-text is available to you as part of your program tuition and fees, but you may purchase hard copies at your own expense through a retailer of your choice. If you choose to do so, please use the ISBN listed to ensure that you receive the correct edition.*

Manually Enrolled Resources

LabPaq

The *Science Methods* LabPaq, sometimes referred to as a lab kit, from Hands-On Labs, is a physical shipment. This lab kit (LabPaq) is covered by your program’s Science Lab Fee, and includes science equipment, specimens, supplies, and chemicals necessary to complete laboratory experiments at home. The experiments reinforce science content and teach laboratory techniques. If you have ordered this in a previous course, there is no need to order another.

1. Use these instructions to order your LabPaq: [Science Methods LabPaq Ordering Instructions](#).
2. Click here for your Science Methods LabPaq Manual: To be used throughout your course and assessment where applicable.

Assessment Tips

Click on the Assessment tab. When the tab opens, click on the Taskstream button.

This will take you directly into the performance assessment which will include the tasks and task instructions. To begin working, click on a task to open the content and see the instructions for completing that specific task.