



## **Course Introduction**

Biology is devoted to the study of living things and their processes. Throughout the year this course provides an opportunity for students to develop scientific process skills, laboratory techniques, and an understanding of the fundamental principles of living organisms. Students will explore biological science as a process, cell structure and function, genetics and heredity, evolution and classification, diversity of living organisms and their ecological roles, and an introduction to animal structure and function.

## **Course Description**

College Prep Biology seeks to develop a conceptual framework for modern biology and to gain experience and appreciation of science as a process. The primary emphasis in this course will be on the understanding of concepts. Essential to this conceptual understanding are a grasp of science as a process and a method in inquiry and an application of biological knowledge and critical thinking to environmental and social concerns.

This is a yearlong course consisting of 15 units. Upon successful completion students will receive 1 credit towards high school graduation.

## **Course Overview**

### Semester 1

- The Science of Biology
- The Chemistry of Life
- Cells
- Photosynthesis
- Cellular Respiration
- Cell Divisions
- Ecology

### Semester 2

- Introduction to Genetics
- DNA
- RNA, Protein Synthesis, Heredity
- Evolution
- Classification
- Viruses and Bacteria
- Protists and Fungi

- Human Body

## Required Course Materials

Please access the list of course materials from the OC Online book ordering system and order your materials as soon as possible. Oftentimes, course materials are on back order and you may experience a delay in receiving them, causing students to fall behind in their online coursework. When ordering used or rented materials, be careful that online access codes are also current.

## Methods of Instruction

- Through the online activities, readings, and hands-on lab activities, this course will enable you to understand and explore the topics in biology.
- Understanding of concepts will be assessed through a variety of formats: lab reports, Canvas discussions, homework assignments, quizzes, and written-proctored examinations, and mini projects.
- Synchronous Sessions

## Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- Assignments: 40% (discussions, written assignments, and lab reports)
- Quizzes: 10%
- Unit Tests: 15%
- Final Exam: 25%
- Participation: 10% (discussion posts, synchronous sessions)