



# Biology

## **Biology**

### Course Overview and Syllabus

#### **Course Description**

This course engages students in the study of life and living organisms and examines biology and biochemistry in the real world. This is a year-long course that encompasses traditional concepts in biology and encourages exploration of new discoveries in this field of science. The components include biochemistry, cell biology, cell processes, heredity and reproduction, the evolution of life, taxonomy, human body systems, and ecology.

#### **Course Objectives**

Throughout the course, you will meet the following goals:

- Understand the relationships among living organisms
- Describe the functions and processes that control cellular activities
- Trace the discoveries and scientific thought that increase the application of new technology in the field of DNA and genetics
- Examine the taxonomy that organizes all organisms
- Recognize the structures and functions of systems of the human body
- Relate the interdependence of ecosystems and propose solutions to issues impacting the environment

#### **Student Expectations**

This course requires the same level of commitment as a traditional classroom course would. Throughout the course, you are expected to gain at least a 2% increase each day online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams



### Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

| <i><b>Grading Category</b></i> | <i><b>Weight</b></i> |
|--------------------------------|----------------------|
| <b>Assignments</b>             | 10%                  |
| <b>Labs</b>                    | 10%                  |
| <b>Lesson Quizzes</b>          | 20%                  |
| <b>Unit Tests</b>              | 40%                  |
| <b>Cumulative Exams</b>        | 20%                  |

### Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

**Unit 1:** The Nature of Science

**Unit 2:** Cell structures and Functions

**Unit 3:** Energy in Cells

**Unit 4:** DNA and Protein Synthesis

**Unit 5:** Genetics and Heredity

**Unit 6:** DNA Technology

**Unit 7:** Natural Selection and Evolution

**Unit 8:** Classifying Organisms