

BIOLOGY 1

Course Description

Biology is a branch of science that deals with living organisms and their vital processes. Biology literally means "the study of life". This course encompasses an overview of biological diversity from viruses and bacteria through plants and animals. This course will cover cells, cell division, reactions and enzymes, biological energy, cellular metabolism and fermentation, as well as photosynthesis. Students will also complete a lab on animals.

Prerequisite

None

Credit Requirement Area

Science

Learning Objectives

- Students will describe the cell and explain its various functions.
- Students will compare and contrast cellular metabolism, fermentation and photosynthesis.
- Students will classify organisms (taxonomy).

Suggested Weekly Schedule

Week	Graded Activities	Suggested Due Date	% Points
1	Assessment 1: The Nature of Science and Biology	Monday of Week 1	25%
	Assessment 2: Chemistry I: Atoms and Molecules	Tuesday of Week 1	25%
	Assessment 3: Chemistry II: Water and Organic Molecules	Wednesday of Week 1	25%
	Assessment 4: Transport In and Out of Cells	Thursday of Week 1	25%
Week 1 Total Percentage Towards Final Grade			16.65%
2	Assessment 1: Cells I: Origins	Monday of Week 2	25%
	Assessment 2: Cells II: Cellular Organization	Tuesday of Week 2	25%
	Assessment 3: Cell Division: Binary Fission and Mitosis	Wednesday of Week 2	25%
	Assessment 4: Cell Division: Meiosis and Sexual Reproduction	Thursday of Week 2	25%
Week 2 Total Percentage Towards Final Grade			16.65%
3	Assessment 1: Reactions and Enzymes	Monday of Week 3	25%
	Assessment 2: ATP and Biological Energy	Tuesday of Week 3	25%
	Assessment 3: Cellular Metabolism and Fermentation	Wednesday of Week 3	25%
	Assessment 4: Photosynthesis	Thursday of Week 3	25%

Week	Graded Activities	Suggested Due Date	% Points
Week 3 Total Percentage Towards Final Grade			16.65%
4	Assessment 1: Biological Diversity: Classification	Monday of Week 4	25%
	Assessment 2: Biological Diversity: Viruses	Tuesday of Week 4	25%
	Assessment 3: Biological Diversity: Bacteria and Archaeans	Wednesday of Week 4	25%
	Assessment 4: Biological Diversity: Protists: Stem Eukaryotes	Thursday of Week 4	25%
Week 4 Total Percentage Towards Final Grade			16.65%
5	Assessment 1: Biological Diversity: Fungi	Monday of Week 5	25%
	Assessment 2: Biological Diversity: Nonvascular Plants and Nonseed Vascular Plants	Tuesday of Week 5	25%
	Assessment 3: Biological Diversity: Seed Plants	Wednesday of Week 5	25%
	Assessment 4: Population Ecology	Thursday of Week 5	25%
Week 5 Total Percentage Towards Final Grade			16.65%
6	Assessment 1-3: Biological Diversity: Animals I, II, III	Monday of Week 6	33.3%
	Lab Assessment: Animal	Wednesday of Week 6	33.3%
	Assessment 4: Community and Ecosystem Dynamics	Friday of Week 6	33.4%
Week 6 Total Percentage Towards Final Grade			16.75%
WEIGHTED TOTAL			100%