

Course Syllabus

Description:

The Biology course guides students through the study of living and non-living systems and how they interact with one another. Students explore the world they live in by posing questions and seeking answers through scientific inquiry. Discovery takes place through observation and data collection. The students will be introduced to the structure, function, diversity, and evolution of living matter. This is a course with real relevance. It encourages curiosity and provides opportunity for students to work on hands on lab activities and develop relationships through collaboratively learning. Engaging in the study of biological science broadens the picture of the world around us.

Estimated Completion Time: 2 segments / 32-36 weeks

Major Topics and Concepts:

Segment I:

Module 00 Getting Started

- 00.01 Things to Know
- 00.02 Navigation
- 00.03 Lessons & Assessments
- 00.04 Course Specifics
- 00.05 Online Learning 101
- 00.06 Pace
- 00.07 Academic Integrity

Module 01 Foundations of Biology

- 01.00 Welcome to Biology
- 01.01 Module One Pretest
- 01.02 Exploring Life
- 01.03 New Technology
- 01.04 Properties of Water
- 01.05 Earth's Early Atmosphere
- 01.06 Module One Discussion-Based Assessment and Exam

Module 02 Life's Origin

- 02.00 Module Two Pretest
- 02.01 Chemistry of Life
- 02.02 Early Cells
- 02.03 Cell Structure and Function
- 02.04 Cellular Energy
- 02.05 Cellular Respiration
- 02.06 Introduction to Photosynthesis
- 02.07 Module Two Discussion-Based Assessment and Exam

Module 03 Cell Reproduction

- 03.00 Module Three Pretest
- 03.01 The Cell Cycle and Mitosis

- 03.02 Meiosis
- 03.03 Mendel
- 03.04 Heredity Patterns
- 03.05 DNA Replication
- 03.06 Mutations
- 03.07 Biotechnology
- 03.08 Health and Genetics
- 03.09 Module Three Discussion-Based Assessment and Exam
- 03.10 Segment One Exam

Segment II

Module 04 Earth's Diversity

- 04.00 Module Four Pretest
- 04.01 Ecology
- 04.02 The Biosphere
- 04.03 Ecosystems
- 04.04 Impacts on our Ecosystem
- 04.05 Recycling
- 04.06 Module Four Discussion-Based Assessment and Exam

Module 05 Scientific Connections

- 05.00 Module Five Pretest
- 05.01 Evolution
- 05.02 Evolutionary Relationships
- 05.03 Primate Evolution
- 05.04 Classification of Living Organisms
- 05.05 Bacteria, Protists, and Fungus
- 05.06 Module Five Discussion-Based Assessment and Exam

Module 06 Classification and Diversity

- 06.00 Module Six Pretest
- 06.01 Plants
- 06.02 Plant Cells and Tissues
- 06.03 Plant Reproduction and Development
- 06.04 Animals
- 06.05 Nervous and Circulatory Systems
- 06.06 Reproductive System
- 06.07 Immune System
- 06.08 Module Six Discussion-Based Assessment and Exam
- 06.09 Segment Two Exam

Course Assessment and Participation Requirements:

To achieve success, students are expected to submit work in each course weekly. Students can learn at their own pace; however, “any pace” still means that students must make progress in the course every week. To measure learning, students complete self-checks, practice lessons, multiple choice questions, projects, discussion-based assessments, and discussions. Students are expected to maintain regular contact with teachers; the minimum requirement is monthly. When teachers, students, and parents work together, students are successful.

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