

Biology

T. Huber

Course Code: SCI 201

Course Description: Biology is an active and rich course. In this class, students discover the world around them and living things from a cellular level to a global level. Students will look at the characteristics of living things and history of Earth through a scientific lens.

Course Outline:

Unit 1: Thinking like a scientist

- Working Like a Scientist
- Lab Safety
- Solving problems like a scientist

Unit 2: Ecology

- Levels of Organization
- Organism relationships and interactions
- Changes and Energy in Ecosystems
- Population Dynamics and Carrying Capacity
- Human Impact

Unit 3: Introduction to Living Things

- Characteristics of Living Things
- Classification
- DNA and DNA replication
- Mitosis
- Cell Structures
- Electrophoresis

Unit 4: Evolution

- Earth's History
- Evidence for Change across time
- Natural Selection

Course Objectives:

Students will:

- Explain the major ideas and concepts that form the basis of biological and scientific principles.
- Discuss what organisms are composed of and what gives them the characteristics of life.
- Examine and apply the scientific method.

- Explore the scientific fields of Paleontology, Physical Anthropology, Developmental Biology and Evolutionary Biology and their evidence for change across time.
- Explain how organisms interact with each other and the environment.
- Explain and demonstrate how different scientific tools are used to explore and examine scientific research.
- Explain how DNA transmits traits to the next generation.

Number/Description of Assignments, Projects, Activities, etc:

Discussion posts, One Face to face activity, labs/Activities, Quizzes and Exams.

Materials: All course materials have been approved for district use.

Timelines & Methods for evaluating student progress: Students are expected to log in daily and submit assignments on a weekly basis. Progress will be evaluated each month based progress towards assignment completion of assignments.

This course meets state and district graduation requirements in the area of Science.

Weekly contact will be conducted through a submitted assignment with instructor feedback. Students who do not submit an assignment are expected to email or call his/her instructor.

Each student is expected to spend a **minimum of five hours** per week on this course. Additional hours may be necessary to complete the course successfully.

Beginning & end date is listed in the grade book.