# Biology

#### COURSE OBJECTIVE

To explore the main topics of Biology and develop a working knowledge. The investigation is to promote students to apply critical thinking skills when confronted with the biological and biotech world in their lifetimes. In conjunction with advancing the students interests and combining them in self-discovery and advancement.

#### **COURSE FORMAT**

Using prepared lectures and labs to introduce biological themes and core concepts accompanied by individual exploration through data collection, projects, field excursions, and exposure to biological industries and research(ers).

Text Book: Campbell Biology, 11th Edition

#### **CLASS PREPAREDNESS**

Arrive to class with a notebook and writing utensil (colored pencils/pens are recommended as well) daily. Taking notes on lecture materials and labs in notebooks is a necessity to success. Hand written notes are the preferred method for note taking, computers/tablets are not acceptable. Computers will be used in class for research, projects, and composing lab reports.

#### **TECHNOLOGY**

The use of computers, tablets, cell phones, etc. are not permitted in class unless otherwise specified by the instructor.

#### **GRADING**

Grades will be calculated based on participation, homework, projects, in-class work and labs, and quizzes and tests.

The scale is the traditional 10% scale: A=100-90, B=89-80, C=79-70, D=69-60, & E=59-0

Participation = 10% HW = 20% Labs = 30% Projects = 15% Quizzes & Tests = 25%

### LATE POLICY

All work turned in late is subject to a daily 10% reduction in grade.

## LEARNING SCHEDULE & TOPICS

Cycle	Material	Labs	Relevance
1 Diversity of Life & Phylogeny	Lectures PowerPoints Text Readings	Bio Scavenger Hunt Hooper Island Survey Microscope:	Diversity as a natural law yields novel and survival outcomes
2 Plant and Animal Diversity	Lectures Animal Family presentations	Microscopic Life Microscope: Bryophytes and Plants	Explaining the unknown knowns around you.  Importance to a sustainable Earth.
3 On Hold for Electives	-	-	-
4 Development and The Environment: Reading <b>Beautiful Swimmers</b>	Lectures	Fertilization	Biotech, humanity, and the future.
5 Cells and DNA	Cell Presentation	Microscope: Cells Gel Electrophoresis	What you are! More Biotech.