

# 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, 11<sup>th</sup> 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

<b>Cycle</b>	<b>Material</b>	<b>Labs</b>	<b>Relevance</b>
1 Diversity of Life & Phylogeny	Lectures  PowerPoints  Text Readings	Bio Scavenger Hunt  Hooper Island Survey  Microscope: Microscopic Life	Diversity as a natural law yields novel and survival outcomes
2 Plant and Animal Diversity	Lectures  Animal Family presentations	Microscope: Bryophytes and Plants	Explaining the unknown knows 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.