

Indiana State University
BIO 112 Section 002
Human Aspects Of Biology

Catalog Course Description

This course covers basic concepts and current issues in biology. The specific focus of this section will be ecology, animal behavior, sensory ecology and human impacts on organisms and the environment. In this course you will be required to think critically about how biology relates to your life and how humans interact with, and affect, the diversity of life forms around us. Issues of climate change, urbanization, population growth, biological diversity, environmental threats, inheritance and evolution all have important health, ethical and social implications. Throughout your life, you will need to make informed decisions regarding these issues and how they affect you, your family, and society. To make these decisions you will need to have a good foundational understanding of the scientific concepts involved. It is also critical that you understand the difference between science and pseudoscience. This requires that you understand how the process of science works, how to evaluate reports about scientific findings, and where to find reliable sources of information. Science is largely a way of obtaining knowledge, rather than simply a collection of facts.

Faculty Information

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Department: Biology
Office Hours: MW 1-2 pm

Course Learning Objectives

BIO 112 and BIO 112L together fulfill the Foundational Studies requirement for Laboratory Science.

In addition to providing students with a basic understanding of the complexity of biological systems, the course satisfies the following Laboratory Science Learning Objectives:

- Articulate how data are acquired, and how hypotheses and theories are constructed. This course will demonstrate, through examples, that observations generate questions, which lead to the formulation of testable hypotheses and the collection of data; that scientific knowledge is open to revision; and that the accumulation of evidence can lead to well-supported, broad frameworks of ideas known as theories.
- Use the scientific method to formulate and test hypotheses.
- Apply scientific theories to predict the nature and behavior of new systems, environments, or scenarios.

•Articulate how current issues in science and technology intersect with populations, institutions, and societies.

The Skill Applied Learning Requirements of the Science and Laboratory category are:

•Develop critical thinking skills. Critical thinking is central to science. You will be asked to think critically about many biological topics that impact individuals and society.

•Develop information literacy skills, i.e., the ability to seek, evaluate, and use information effectively. You will learn skills that will help you assess the validity of statements about science that you encounter in everyday life, evaluate the degree of bias in popular science writing, and distinguish between reliable and unreliable sources of information.

•Develop writing skills. You will complete multiple written assignments that challenge you to clearly express your ideas.

Required Textbooks and Materials

The primary textbook for this course will be OpenStax Concepts of Biology; which is available as a free pdf online. Other supplementary materials will be provided as in-class handouts and/or posted on the Canvas site.

Graded Elements of the Course

In-class assignments/activities (5)	125 points
Out of class assignments (4)	80 points
Final assignment	30 points
Quizzes (5)	100 points
Discussion board	30 points
TOTAL	360 points