



Introduction to Biology familiarizes students with fundamental biological principles and processes occurring in our natural world. Students will be introduced to issues in science and society and engage in scientific inquiry. Topics include evolution, ecology, human impacts on the environment, human biology, cells and genetics. (Prerequisites: READ 0090) (MnTC Goal Area 3: Natural Sciences)

4

80

Lecture

3/48

Lab

1/32

READ 90

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

- Identify several characteristics of science
- Explain how scientific knowledge is gained
- List steps typically included in a scientific method
- Describe a theory in the context of science
- Explain the importance of science in society

Recognize appropriate scientific methodologies
Identify reputable resources of scientific information
Apply an appropriate scientific method to solve a problem or answer a question
Communicate the findings of a scientific inquiry

List unifying properties of life
Define biology and list the levels of biological organization
Explain the importance of biology in society
Identify several factors that contributed to the existence of life on

List the major characteristics of fungi
Categorize the major groups of fungi
Explain why knowledge of fungi is important

List the unifying characteristics of prokaryotes
Differentiate between prokaryotes and eukaryotes
Identify the major groups of prokaryotes
Explain the importance of prokaryotes

Define ecology and list the levels for which it is studied
Illustrate energy flow and chemical cycling in an ecosystem
Describe different types of interspecies interactions
Define ecological niche and describe examples
Compare and contrast population growth models

Describe the nature of environmental science
Describe past and current trends in human population growth
Identify the causes, consequences and potential solutions of major environmental problems

Define homeostasis and explain how it is regulated
Explain the relationship between biological structure and function
Identify tissues and organs of the body and explain their functions
Describe the structures and functions of the body's organ systems

Identify intracellular structures and explain their functions
Illustrate the process of cell division
Explain how cell division is controlled and regulated
Compare and contrast mitosis and meiosis

Describe the nature of inheritance
Illustrate the process of DNA replication
Illustrate the process of protein synthesis
Assess several DNA technologies

Be aware of any hazardous materials that may be used during experiments
Handle chemicals and equipment in a safe manner

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class,

and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: www.southcentral.edu/disability

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