

COURSE OUTLINE

Revision: Joan Stover, May 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	The Natural World
COURSE TITLE:	Survey of Biology
COURSE NUMBER:	BIOL& 100
TYPE OF COURSE:	Academic Transfer
Special Requirement Met:	Mathematics/Quantitative Reasoning
AREA(S) OF KNOWLEDGE:	The Living World
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	33
LAB HOURS:	44
CLASS SIZE:	30
PREREQUISITES:	None

COURSE DESCRIPTION:

Introduction to biological principles and concepts; cell biology; application of biological knowledge to problems of society; and development of an awareness of science. Lab included. For biotechnology and non-science majors.

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STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Read and listen actively to learn and communicate. Speak and write effectively for personal, academic and career purposes.
2. Computation – Use arithmetic and other basic mathematical operations as required by program of study. Apply quantitative skills for personal, academic and career purposes.
3. Human Relations – Use social interactive skills to work in groups effectively.
4. Critical Thinking and Problem Solving - Think critically in evaluating information, solving problems and making decisions.
5. Personal Responsibility - Be motivated and able to continue learning and adapt to change. Value one's own skills, abilities, ideas and art. Take pride in one's work. Manage personal health and safety. Be aware of civic and environmental issues.
6. Information Literacy - Access and evaluate information from a variety of sources and contexts, including technology.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Have a clear understanding of biological concepts.
2. Develop an awareness of science and the scientific method of reasoning.
3. Apply basic concepts to applications.
4. Have a familiarization with all biology.
5. Understand the enormous diversity of life.
6. Understand the basic principles of cell division and inheritance and the role of DNA.

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TOPICAL OUTLINE:

- I. Diversity of life and it's chemical foundations
- II. The cell and metabolism
- III. Energy
- IV. Mitosis and meiosis
- V. Inheritance and DNA
- VI. Proteins
- VII. Micro-and Macro- evolution
- VIII. Classifications of life
- IX. Plant structure and reproduction
- X. Animal structure and reproduction
- XI. Animal systems
- XII. Populations and communities
- XIII. Ecosystems and the biosphere

Total hours 77

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SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1		Communication - Read and listen actively
SLO 1.2	2	Communication - Speak and write effectively
SLO 2.1		Computation - Use mathematical operations
SLO 2.2	5	Computation - Apply quantitative skills
SLO 2.3	1, 6	Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1	3	Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2	4	Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1, 6	Critical Thinking and Problem Solving -
SLO 5.1		Technology - Select and use appropriate technological tools
SLO 6.1		Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2		Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3		Personal Responsibility - Take pride in one's work
SLO 6.4	5	Personal Responsibility - Manage personal health and safety
SLO 6.5		Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1		Information Literacy - Access and evaluate information
SLO 7.2		Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society

PREPARED BY: J. Stover
DATE: May 2008