STANDARDIZED COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER: Biology 105
COURSE TITLE: General Biology
COURSE CATALOG DESCRIPTION: This one-semester course is designed to give the student a background in the basic concepts of biology with emphasis on characteristics of life, structure and function of cells, tissues, organs, and organisms, genetics, evolution and ecology.
LECTURE HOURS PER WEEK: 3
CREDIT HOURS: 4
LAB HOURS PER WEEK: 2
PREREQUISITE(S): Mat 075 or mathematics placement score for entry into Mat 095. 1. Level II score on reading placement test or successful completion of Eng 003.
2. Level II score on reading placement or successful completion of Eng 013. The alternate prerequisite is a grade of B- or better in ESL 153 A. (ESL 153A is ESL level IV).

SECTION II

A. SCOPE: The objectives of General Biology are to enable the student to understand and appreciate : 1) the characteristics of living things, including a brief survey of the kingdoms of life- bacteria, protists, plants, fungi and animals, 2) the general features of cells, cell theory, metabolism, structure, and function, 3) reproduction, including asexual and sexual reproduction, mitosis, meiosis and life cycles in plants and animals, 4) heredity and genetics, including Mendelian and post-Mendelian concepts of genetics, mutations and human genetics, 5) the general principles of evolution, and 6) ecology, the inter-relationship among organisms and their environments, ecosystems and a brief survey of environmental problems.
B. REQUIRED WORK: To be determined by instructor.
C. ATTENDANCE AND PARTICIPATION: Regular attendance and class/lab participation are expected. (Specific instructor policies should be listed on the class syllabus.)
D. METHODS OF INSTRUCTION: The methods of instruction are determined by each instructor and may include but are not limited to lecture, lecture/discussion, small group, collaborative learning, experimental/exploration, distance learning, student presentations, and use of technologies such as audio-visual materials (films, CD-roms, transparencies, charts, handouts, newspaper and journal readings) computers, and calculators. Student participation through collaborative learning in the laboratory is an integral part of the course. A typical laboratory schedule may include exercises listed on the attached page.

E. OBJECTIVES, OUTCOMES, and ASSESSMENT

The following objectives and outcomes represent the department's core requirements for student achievement:

LEARNING OBJECTIVES	**LEARNING OUTCOMES**	**ASSESSMENT METHODS**
To demonstrate an understanding of:	**Student will:**	**As measured by:**
Structure and Function. The characteristics, structure and function of organisms.	Analyze and compare the structure and function of an organism in terms of atoms, molecules, cells, tissues, organs and organ systems. Describe the general concepts of metabolism, including photosynthesis and cellular respiration. Classify organisms based on a variety of characteristics and describe the current classification system, including a brief survey of the kingdoms of life.	Exams Presentations Reports Homework Assignments
Genetics and Reproduction- The transmission of traits in organisms	Analyze laws of genetics, including Mendelian and post-Mendelian concepts, mutations and human genetics and recognize how these laws are related to the structure and function of DNA Describe how traits are passed from one generation to the next generation Analyze asexual and sexual reproduction, mitosis, meiosis and life cycles in plants and animals,	
Evolution/Ecology. The relationship between organisms and their environment and the relationship among organisms.	Describe the theory of natural selection as a mechanism of change over time. Analyze how organisms have changed over time using fossils and various pieces of evidence and describe how these adaptations help an organism to survive Analyze the impact that organisms, including humans, have on the environment, which influences the balance of populations.	

F. TEXT(S) AND MATERIALS:

Biology- A Guide to the Natural World, D. Krogh, Prentice Hall.

General Biology Laboratory Manual- Capital Community College

G. INFORMATION TECHNOLOGY: none