

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
BIO 121S INTRODUCTION TO BIOLOGY:
CELLS, GENETICS, AND EVOLUTION
4 CREDIT HOURS

COURSE DESCRIPTION

Introduction to the basic concepts of biology with emphasis on molecular biology, cells, genetics and evolution. Three hours of lecture integrated with two hours of lab activities each week. Recommended preparation: One year high school biology and one year of high school chemistry. Prerequisite: Satisfactory math assessment score or a grade of “C” or better in MTH 097D. Lab fee

COURSE GOALS

The student will:

Bloom's Level		Gen Ed Outcomes
2	1. Describe the organization of the living world.	6
4	2. Analyze the importance of homeostasis in living systems.	2, 6
3	3. Describe the chemistry of life and relate it to cell structure.	2, 6
2	4. Interpret the flow of energy in cells and living systems.	3, 5, 6
2	5. Discuss the importance of DNA, chromosomes, cell division, and genetic recombination as it relates to biological fitness.	1, 2, 5, 6
1	6. Identify the concepts and components of biological evolution.	1, 6
2	7. Explain the role that the environment plays with respect to biological evolution.	2, 3, 5, 6
4	8. Outline concepts which examine the unity and diversity of life with respect to biological evolution.	2, 5, 6
5	9. Summarize the relationships of science, critical thinking, and social responsibility.	1, 2, 4, 6

CORE VALUES

The Core Values are a set of principles that guide in creating educational programs and environments at Edison. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce these Core Values whenever appropriate.

TOPIC OUTLINE

1. Introduction to Biology and Scientific Method
2. Biological Chemistry
3. Cell Structure and Function
4. Energy and Cellular Respiration
5. Cell Division
6. DNA and Genetic Code
7. Genetics
8. Evolution and Natural Selection: Microbial Life
9. Diversity of Lower Plants
10. Invertebrates
11. Vertebrates