

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: BIO 102

Credits: 4

Course Title: General Biology II

Course Description (including lecture hours, lab hours, total contacts)

Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. Part II of II. Lecture 3 hours. Recitation and Laboratory 3 hours. Total 6 hours per week.

General Course Purpose

This course is designed to meet the requirements of a transfer course in a science major's curriculum at a four-year college or university.

Course Prerequisites/Corequisites

Prerequisite: satisfactory completion of BIO 101

Course Objectives

Upon completing each of the following units of the course, the student will be able to:

- a. Explain why a classification system is necessary.
- b. Describe what is meant by a binomial system of nomenclature
- c. List the 5 kingdoms of organisms and state the criteria used to assign organisms to each kingdom.
- d. List and describe the four major tissues types and describe how they are organized into an organ such as the skin or stomach.
- e. Describe the generalized body plan of a flowering plant.
- f. Name the most recently evolved and most abundant group of plants and give evidence to support this.
- g. Differentiate between the monocots and dicots by structure of seed, roots, stems, leaves and flowers; tell which is most common.
- h. Define the terms population and community.
- i. Relate the birth rate (natality), death rate (mortality), immigration and emigration to population size.

Major Topics to be Included

- a. Biology of plants
- b. The origin of animals
- c. Biology of populations
- d. Ecology

Effective Date of Course Content Summary (Month, Date Year): February 13, 2009