

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

**Course Prefix and Number:** BIO 1

**Credits:** 4

**Course Title:** Foundations of Biology

**Course Description:** Develops a basic understanding of plant and animal form, function, and relationships. Prepares students who have a deficiency in high school biology. Credits cannot be included in any of the college's academic program. Lecture 4 hours per week.

**General Course Purpose:** Prepares students who have a deficiency in high school biology.

**Course Prerequisites and Co-requisites:**

None

**Student Learning Outcomes:**

Upon completing the course, the student will be able to

- a. List and understand the steps of the scientific method;
- b. Describe the fundamentals of matter;
- c. Complete a monohybrid cross and correlate it to the inheritance of traits;
- d. Draw and label the components of prokaryotic and eukaryotic cells;
- e. Explain the major tenets of natural selection;
- f. Write a complete taxonomic classification for an organism; and
- g. Describe all of the different types of habitats found on earth.

**Major Topics to Be Included:**

- a. What is biology?
- b. Chemistry
- c. Cell biology
- d. Genetics
- e. Ecology
- f. Evolution
- g. Taxonomy

**Date Created/Updated (Month, Day, Year):** January 23, 2019