

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

Course Prefix and Number: BIO 107 **Credits:** 4

Course Title: Biology of the Environment

Course Description:

Presents the basic concepts of environmental science through a topical approach. Includes the scientific method, population growth and migration, use of natural resources and waste management, ecosystem simplification and recovery, evolution, biogeochemical cycles, photosynthesis and global warming, geological formations, atmosphere and climate, and ozone depletion, pollution examples and anti-pollution laws, and acid deposition. Environmental Sustainability Designation: Course content related to the study of sustainable development. Prerequisite: Placement in ENG 111 or placement in co-requisites ENG 111 and EDE 11 by placement test or instructor/advisor approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. 4 credits

General Course Purpose:

This course provides content covered in an introductory environmental course and can be used for credit toward the AS in Science degree.

Course Prerequisites and Co-requisites:

Prerequisite: Completion of ENF 2, if required by placement test or instructor/advisory approval.

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Understand environmental science using a multidisciplinary approach;
- Use critical thinking skills to evaluate scientific and technical issues both personally and more globally;
- Understand key concepts of biology, chemistry, and physics, and relate them to social, political, and ethical issues; and
- Express scientific concepts in both oral and written form.

Major Topics to Be Included:

- Scientific method
- Population growth and migration
- Use of natural resources and waste management
- Ecosystem simplification and recovery
- Evolution
- Biogeochemical cycles
- Photosynthesis and global warming
- Geological formations
- Ozone depletion and acid deposition

Effective Date/Updated: January 23, 2019