Administrative Unit: Science Department

Course Prefix and Number: BIOL 115L

Course Title: Introduction to Environmental Science Laboratory

Number of: Credit Hours: 2 Lecture Hours: 0 Laboratory Hours: 2

Catalog Description: Laboratory experiences to complement BIOL 115. Cross-listed as ENVS 115L. $20 lab fee. Prerequisites: BIOL 115 must be taken as a co-requisite or completed before BIOL 115L can be used as General Education credit. G.E.

Prerequisite(s)/Corequisite(s): BIOL 115 must be taken as a co-requisite or completed before BIOL 115L can be used as General Education credit.

Text(s): Textbook(s) listed is/are not necessarily the textbook(s) used in the course.


Course Objectives:

• To apply the basic principles of ecology to real world issues.
• To explore ecological and environmental topics in depth through discussion, critical analysis and experimentation.
• To evaluate the role and impact of humans on natural systems.

Measurable Learning Outcomes

• Define sustainability.
• Describe the relationships between climate and biomes.
• Illustrate how matter and energy cycle in ecosystems.
• Identify how species interact with each other and the environment.
• Outline human population characteristics and analyze their past and future impacts.
• Describe basic geochemical cycles.
• Appraise the value of wild species and biodiversity.
• Describe sources, uses and problems of energy sources including fossil, nuclear, renewable and alternative fuels.
• Analyze causes and effects of land, air and water pollution.
• Describe causes and effects of global climate change.
• Model sustainable economic, social and political methods.
Topical Outline (major areas of coverage):

- Ecological principles.
- Population and community ecology.
- Biodiversity and conservation.
- Resource issues – air, water, geology, energy.
- Environmental health.
- Social, political, economic impacts and choices.

Recommended maximum class size for this course: 24

Library Resources:

Online databases are available at http://www.ccis.edu/offices/library/resources.asp. You may access them from off-campus using your eServices login and password when prompted.

Prepared by: Julie Estabrooks, Ph.D.

Signature

Date: January 23, 2005

NOTE: The intention of the master syllabus is to provide an outline of the contents of this course, as specified by the faculty of Columbia College, regardless of who teaches the course, when it is taught or where it is taught. Faculty members teaching this course for Columbia College are expected to facilitate learning pursuant to the course objectives and cover the subjects listed in the topical outline. However, instructors are also encouraged to cover additional topics of interest so long as those topics are relevant to the course’s subject. The master syllabus is, therefore, prescriptive in nature but also allows for a diversity of individual approaches to course material.

Office of Academic Affairs
12/04