Discipline: Agriculture	Sub-discipline: General Agriculture
General Course Title: **Environmental Conservation**	Min. Units: **3 Semester**
	Proposed Suffix: **L**

Course Description:
This course involves a study of the world's environment to sustain the highest quality of life. Includes study of ecology, populations, environmental pollution, conservation of natural resources including: energy, water, soils, forests, rangelands, and wildlife.

Required Prerequisites or Co-Requisites[1]

Advisories/Recommended Preparation[2]

Course Objectives: *At the conclusion of this course, the student should be able to:*

- Evaluate the environmental conditions of humans in relationship to their total environment.
- Analyze historical development of natural resources use to sustain for a higher quality life for humankind.
- Interpret information about the environment.
- Relate the broad principles of environmental conservation learned in class to everyday life.
- List and describe soil conservation methods.
- Evaluate the energy flow cycle.
- Analyze the hydrologic cycle.
- Analyze air and water pollution causes and discuss possible solutions.
- Analyze the cause of solid, toxic and hazardous waste.
- Evaluate land use policies.
- Evaluate rangeland ecology topics.
- Analyze the major ecosystems of the world as well as local ecosystems.
- Explain the principles of the scientific method.

Course Content:

1. Understanding the environment

2. Species interaction

3. Eosystems—local, global

4. Population and environmental health
   a. Population dynamics
   b. Environmental health and toxicology

5. Food, land and biological resources
   a. World hunger
   b. Soil conservation
   c. Sustainable agriculture
   d. Biodiversity
   e. Land use—forests and rangelands

Environmental Conservation
(Content Continued)

[1] Prerequisite or co-requisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course.

[2] Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling.

6. Physical resources
   a. Air, climate and weather
   b. Air pollution
   c. Water pollution
   d. Conventional energy
   e. Energy cycles

7. Society and the environment
   a. Solid, toxic and hazardous waste
   b. Urbanization
   c. Conclusions and analysis

Laboratory Activities: Individual Laboratory Activities are designed to support course objectives.

Methods of Evaluation: Lecture	Methods of Evaluation: Laboratory
Comprehensive Quizzes and Exams	Laboratory Skill Validation by Observation
Written Critical Thinking Scenarios	Laboratory Projects and Reports
Problem Analysis and Solution	Laboratory Research Projects and Reports
Research and Term Papers	Laboratory Skill Practicum Exams

Typical Textbooks, Manuals, or Other Support Materials

Environmental Science, Cunningham and Saigo, McGraw Hill, 1999, 5th edition

CSU GE Area B.2 Life Science

FDRG Lead Signature: Date:

Mark E. Bender, PhD CSU Stanislaus

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