

NEW COURSE PROPOSAL

PROGRAM AREA ENVIRONMENTAL SCIENCE AND RESOURCE MANAGEMENT

1. Catalog Description of the Course.

ESRM 100. Introduction to Environmental Science and Resource Management (3)
 Three hours of lecture per week.

This course covers a broad spectrum of environmental science topics including: biogeochemical cycles, biological diversity, world food supply, effects of agricultural production on the environment, energy, water and air environments, and societies' impacts on the environment. Current environmental issues such as loss of biological diversity, global climate change, ozone depletion, and natural resource management will be discussed.

GenEd: B2, D

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	___3___	___1___	___25___
Seminar	_____	_____	_____
Laboratory	_____	_____	_____
Activity	_____	_____	_____

3. Justification and Learning Objectives for the Course.

- To provide an up-to-date introduction to environmental science, the study of the environment;
- To introduce the interdisciplinary nature and approaches needed in environmental science; and
- To provide a basic knowledge and background that allows for critical thinking about environmental issues.

Upon successful completion of this course students will be able to:

- Identify the ways in which humanity has affected the ecological function of natural environments;
- Critically analyse environmental issues and correctly identify the root causes;
- Identify the role of science in addressing environmental problems; and
- Recognize the need to incorporate socio-economic, political, and cultural considerations into environmental decision making.

It is anticipated that this course will be required for the ESRM major and minor.

4. Is this a General Education Course YES

If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)		
B (Mathematics & Sciences)	X	
C (Fine Arts, Literature, Languages & Cultures)		
D (Social Perspectives)	X	
E (Human Psychological and Physiological Perspectives)		

5. Course Content in Outline Form.

Environmental ethics and perspectives
 Ecological concepts
 Population and community ecology
 Ecosystems ecology
 Population dynamics
 Population issues

Economics, stability, and sustainability
Feeding the world
Soil and agriculture
Pests and their control
Climate and air pollution
Air pollution: acid rain
Air pollution: global warming
Introduction to Water
Water pollution
Energy
Health risks and perceptions
Hazardous waste
Environmental regulations
Solid waste issues
Biodiversity
Biodiversity and preservation
Land Use
Land Use Planning
Urbanization and sustainability
Politics and current issues

6. References.

Environmental Science: Toward A Sustainable Future (8th Edition)
by Bernard J. Nebel, Richard T. Wright (2002), Prentice Hall

Environmental Science (6th Edition) by Daniel Chiras (2001), Jones and Bartlett

Environmental Science: A Global Concern by W.P Cunningham and B.W. Saigo (2001), McGraw-Hill Science

7. List Faculty Qualified to Teach This Course.

Professor Mark Zacharias
Other CSUCI science or economics faculty

8. Frequency.

a. Projected semesters to be offered: Fall _____ Spring X Summer _____

9. New Resources Required.

None

10. Consultation.

N/A

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

____Mark Zacharias_____12/11/02_____
Proposer of Course Date