CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREA ENVIRONMENTAL SCIENCE AND RESOURCE MANAGEMENT

1. Catalog Description of the Course.

ESRM 313 CONSERVATION BIOLOGY (4)
Three hours of lecture and three hours of laboratory per week.
Prerequisites: ESRM 100, BIOL 200

This course explores issues surrounding the conservation of biodiversity. Topics to be covered include: species-, population-, and ecosystem-level issues, biodiversity, extinction, sustained yield, exotic species, and reserve design. Management implications and the ecology of issues are integrated throughout the course. Lab fee required.
Same as BIOL 313

BIOL 313. Conservation Biology (4)
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Prerequisites: ESRM 100, BIOL 200

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2. Mode of Instruction.

	Units	**Hours per Unit**	**Benchmark Enrollment**
Lecture	___3____	____1___	___25___
Seminar	_____	_____	_____
Laboratory	___1____	____3___	___25___
Activity	_____	_____	_____

3. Justification and Learning Objectives for the Course.

The course is designed to:

- Critically evaluate the origins and development of conservation;
- Provide an up-to-date synthesis and understanding of the multiple disciplines relating to the conservation of plants and animals; and
- Encourage thought, reflection, and action among students interested in fields related to conservation biology.

At the end of this course, students should be able to:

- Describe methods of how resources are valued;
- Critically analyze the factors involved in the historical evolution of conservation;
- Analyze the general scientific bases of conservation;
- Analyze conservation management as a land use strategy;
- Critically assess relationships between human and scientific perspectives on conservation;
- Critically assess the applications of key theories in population and evolutionary ecology to scientific conservation;
- Assess methods of measuring biodiversity; and
- Analyze the nature reserve concept in relation to conservation objectives.

It is anticipated that this course will be an elective for the ESRM and Biology majors and minors.

4. Is this a General Education Course **NO**

If Yes, indicate GE category:

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

5. Course Content in Outline Form.

Conservation values and ethics
The species in conservation
Global biodiversity
Loss of biodiversity
Conservation of genetic variation
Loss of genetic variation and fitness
Gene flow in a landscape
Demographic models
Metapopulation models
Population viability analysis
Conservation of communities
Species
Habitat fragmentation
Conservation reserves
Conservation management principles
Restoration ecology

6. References.

Principles of Conservation Biology
Gary Meffe and Ron Carroll. Sinauer Associates (2002)

Essentials of Conservation Biology. 2nd ed.
Richard B. Primack. Sinauer Assoc., Inc. (1998)

Problem-Solving in Conservation Biology and Wildlife Management: Exercises for Class, Field, and Laboratory
James P. Gibbs, Malcolm L. Hunter, Eleanor Jane Sterling. Blackwell Science Inc (1998)

Conservation Biology: Research Priorities for the Next Decade
Michael E. Soule (Editor), Gordon H. Orians (Editor), P. Dee Boersma. Island Press (2001

7. List Faculty Qualified to Teach This Course.

Professor Mark Zacharias

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.