

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREA BIOLOGY

1. Catalog Description of the Course

BIOL 310 ANIMAL BIOLOGY AND ECOLOGY (4)

Three hours of lecture and three hours of laboratory per week.

Animal adaptation and diversity and their relationship to the development of evolutionary theory and the environment. Identification of the common invertebrates and vertebrate animals. Field trips to local ecosystems will be taken. A lab fee is required.

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	___3___	___1___	___48___
Seminar	_____	_____	_____
Laboratory	___1___	___3___	___24___
Activity	_____	_____	_____

3. Justification and Learning Objectives for the Course.

This is an elective course for Biology and ESRM majors. This course will use lectures, audiovisual material, laboratory investigations and the extensive local resources around CSUCI campus for fieldwork. It will build student confidence in identification of local animals and develop understanding of the ecological principles operating in local communities. Ecological questions will be addressed at the levels of individuals, populations, communities and ecosystems – both aquatic and terrestrial examples. The course will also discuss life histories, population growth and regulation, managing populations and species interactions using theoretical models.

Students who successfully complete this course will be able to:

- describe the diverse structures and functions of animals
- describe the ecological and evolutionary processes that affect animals
- identify animal species which comprise the major populations in Southern California
- describe the nature of interactions between species in communities
- critically assess the major environmental impacts upon animal communities
- analyse how components of the environment affect survival and reproduction

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)	

5. Course Content in Outline Form.

- Identification of local vertebrates and invertebrates
- Animal diversity and adaptation
- Taxonomy and animal distributions
- Basic concepts and specializations in animal ecology
- Species interactions
- Environmental impacts upon animal communities

6. References.

- Begon, M. *et al.* 1996. *Ecology: Individuals, Populations and Communities*. Blackwell Scientific
- Bush, Mark B. 2003. *Ecology of a changing planet*. Prentice Hall.
- Cleveland P. *et al.* 1997. *Integrated Principles of Zoology*. McGraw Hill.
- Elton, Charles S. *Animal Ecology*. 2001. University of Chicago.
- Stiling, Peter. 2002. *Ecology; theories and applications*. Prentice Hall.

7. List Faculty Qualified to Teach This Course.

Biology faculty

8. Frequency.

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

9. New Resources Required.

- a. Computer (data processing), audio visual, broadcasting needs, other equipment
 - b. Library needs
 - c. Facility/space needs
- Biology teaching laboratory with laboratory equipment and supplies.

10. Consultation.

Attach consultation sheet from all program areas, Library, and others (if necessary)

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

Ching-Hua Wang_____	20 Dec, 2002_____
Proposer of Course	Date