CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREA BIOLOGY

1. Catalog Description of the Course

BIOL 311 PLANT BIOLOGY AND ECOLOGY (4)
Three hours of lecture and three hours of laboratory per week.
A general introduction to diverse structures and functions of plants and their relationship to the environment. Identification of local native plants and plant communities, uses of native plants by Native Americans, and human and environmental impacts on native plant communities. Field trips to local sites 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 plant species and develop understanding of the ecological principles operating in local plant communities.

Students who successfully complete this course will be able to:
- describe the diverse structures and functions of plants
- describe the ecological and evolutionary processes that affect plants
- identify the plant species which comprise the major plant communities in Southern California
- consider the ethnobotanical uses of plants and their importance to other cultures
- critically assess the major environmental impacts upon plant communities

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.

- Basic concepts and specializations in plant ecology
- Taxonomy and plant distributions
- Identication of local plants
- Species interactions
- Plant communities and classification
- Ethnobotanical uses of plants
- Photosynthesis
- Environmental factors (light, temperature, fire, soil)
- Major vegetation types

6. References.

Barbour, M.G. *et al*. *Terrestrial Plant Ecology* (3rd ed.) Addison Wesley Longman, Inc
Begon, M. *et al*. 1996. *Ecology: Individuals, Populations and Communities*. Blackwell Scientific
Dale, N. 2000. *Flowering Plants: The Santa Monica Mountains, Coastal & Chaparral Regions of Southern California* California Native Plant Society
Harris, J. G. & Harris, M. W. *Plant Identification Terminology* Spring Lake Publishing
Hickman, J. C. (ed) *The Jepson Manual*. University of California Press.
Kingsley, R. *et al*. 2002. *Introductory Plant Biology*. McGraw Hill.
McAuley, M. *Wildflowers of the Santa Monica Mountains*. Canyon Publishing Co.

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