

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREA _____

- 1. Catalog Description of the Course.** *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ____ units); time distribution (Lecture ____ hours, laboratory ____ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

BIOL 432. PRINCIPLES OF EPIDEMIOLOGY AND ENVIRONMENTAL HEALTH (3)

Three hours lecture per week

Prerequisites: CHEM 122; BIOL 201 with a grade of C or better.

Distribution and dynamics of human health problems and principles and procedures used to determine circumstances under which disease occurs or health prevails and to aid in managing and planning health and environmental systems. The broadened scope of epidemiology is examined through case studies and community and environmental health approach..

GenEd: B2, D and Interdisciplinary

- 2. Mode of Instruction.**

	Units	Hours per Unit	Benchmark Enrollment
Lecture	____3____	____1____	____30____
Seminar	_____	_____	_____
Laboratory	_____	_____	_____
Activity	_____	_____	_____

- 3. Justification and Learning Objectives for the Course.** (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

This is an upper-division elective course for students majoring in Biology and a required upper-division course for students majoring in Environmental Science and Resource Management with an Emphasis in Environmental Science. It may also serve students in Liberal Studies program. It is designed to introduce students to the principles of epidemiology and related issues in environmental health. Students that successfully complete this course will be able to:

1. Determine circumstances under which disease occurs or health prevails in human populations.
2. Identify environmental health issues in local communities, society at large and in the world.
3. Select and apply experimental procedures to solve epidemiological problems.
4. Apply quantitative problem-solving skills to public health problems and environmental health issues.
5. Reason both inductively and deductively with experimental, demographic information and data.
6. Apply the knowledge and skills learned from this course in managing and planning health and environmental systems.

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

If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Mathematics & Sciences)	B2
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	x
E (Human Psychological and Physiological Perspectives)	

- 5. Course Content in Outline Form.** *[Be as brief as possible, but use as much space as necessary]*

1. Foundations of epidemiology
2. Practical disease concepts in epidemiology

3. Historical developments in epidemiology
4. Public and environmental health issues
5. Epidemiological measures of health status
6. Epidemiological vital statistics and health indicators
7. Descriptive statistics in epidemiology
8. Research methods, study design and analytical studies
9. Case studies and analyses
10. Management and Planning of public health and environmental systems

6. References. *[Provide 3 - 5 references on which this course is based and/or support it.]*

1. *An Introduction to Epidemiology*, Thomas C. Timmreck, Jones and Bartlett Publishers, 2002
2. *Essential Epidemiology: Principles and Applications*, William Anton Oleckno, Waveland Press; March 2002
3. *Our Global Environment: A Health Perspective*, Anne Nadakavukaren, ISBN 1577660986 (March 2002)
4. *Basic Environmental Health*, Annalee Yassi (Editor), Tord Kjellstrom, Theo De Kok, Tee L. Guidotti, Oxford University Press; ISBN: 019513558X; March 15, 2001

7. List Faculty Qualified to Teach This Course.

Biology faculty member

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

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.

<u>Ching-Hua Wang</u>	<u>1-3-03</u>	
Proposer of Course	Date	