

GE CRITERIA APPROVAL FORM

Course Number and Title:

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

Faculty Member(s) Proposing Course: Ching-Hua Wang

Indicate which of the following categories would be satisfied by this course by marking an "X" on the appropriate lines.

Courses may be placed in up to two GE categories as appropriate. Upper Division Interdisciplinary GE courses may be placed in two categories plus the UDIGE category.

	A1: Oral Communication
	A2: English Writing
	A3: Critical Thinking
	B1: Physical Sciences
x	B2: Life Sciences
	B3: Mathematics
	B4: Computers and Technology
	C1: Fine Arts
	C2: Literature
	C3: Languages & Cultures
X	D: Social Perspectives
	E: Human Psychological & Physiological Perspectives
x	Upper Division Interdisciplinary GE

Lab Included? Yes _____ No X

Please provide a brief explanation of how the proposed course meets each of the criteria for the selected General Education categories.

BIOL 432 is the study of the distribution and determinants of disease in human populations and it presents a valuable introduction to the methodologies and concerns in the epidemiological and environmental health arena. It is designed for students in natural and social sciences and environmental science and resource management in particular. It may also serve students in Liberal Studies program. It surveys the scope of epidemiology as well as environmental health disciplines. Encompassing biology, chemistry, statistics, demographics, medicine, and public health and environmental health policies, students will examine the biology of diseases including cancer and chronic illnesses such as diabetes and heart disease, diseases caused by environmental factors as well as diseases caused by infectious agents and their mechanisms of transmission. The environmental causes of diseases will be addressed by examining the health risks of chemical agents in the air, soil and water. In addition, the relationship between health status and social, economic and racial factors will be evaluated through case studies. The impact of epidemics of diseases on psychological well-being of individuals and human populations, on society and economy of local regions, countries and the world will be examined through case studies as well. This course will integrate several disciplines in the natural and social sciences including biology, chemistry, environmental science and resource management, math as well as disciplines in other social sciences. The course uses the scientific method to analyze epidemiological and environmental health issues and

practices of households, firms and human populations, and it builds skills in critical thinking and writing through extensive discussions and writing assignment.

Students who 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.

Hence we feel that this course meets each of the criteria in GE categories B2, D and UDIGE.