

Graduate School of Public Health
San Diego State University

PH 634

Environmental Protection

Syllabus — Spring 2007

Instructor: **Ken Calvert**

Contact Information

Phone number: 619-594-1688

Office hours: Wednesday 9:00 am – 10:00 am

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students are encouraged to communicate by e-mail

Course Time and Place

Wednesdays 10 – 12:40 in HH 146

Course Description and Learning Objectives

This class will provide students with in-depth knowledge of issues central to environmental health concentrating on food protection, vector control, and solid waste. Students will acquire knowledge related to REHS certification with respect to these topics.

Students successfully completing this course will be able to:

1. Discuss key factors and public health control measures for foodborne and vectorborne disease
2. Explain the chain of infection, and how the transmission of foodborne and vectorborne diseases may be prevented
3. Describe the major diseases which are transmitted by the foodborne or vectorborne route

4. Describe the major chemical hazards and biosafety hazards in food
5. Identify the major risk factors for foodborne and vectorborne disease
6. Explain the major control measures for food protection and prevention of vectorborne disease
7. Discuss current emerging issues in food protection, vector control, and solid waste
8. Understand and explain public health practice in the context of environmental protection through contact with public health practitioners in environmental health.

In addition, through completion of a library Research Paper and class Presentation

Students will be able to:

1. Rapidly and efficiently search and retrieve print, database, and internet information in the area of environmental health
2. Demonstrate the appropriate computer skills to store, analyze, and present information from print, database, and world wide web sources
3. Interpret and discuss scientific findings and complete a formal scientific research paper describing and interpreting results
4. Analyze and critique experimental research designs in environmental health science
5. Identify significant gaps, areas of uncertainty, and barriers to understanding the health effects of environmental agents
6. Present information in environmental health in a clear, orderly, and focused manner, and to be able to answer questions about environmental health during a presentation

Course evaluation

Midterm 1, 25 %,

Midterm 2, 20%,

Research paper 30 %, bibliography 5%, oral presentation 10 %

Class participation / short assignments 10 %

(NOTE: attendance and completion of short assignments are important for this class)

Text, Articles and Readings

The texts for this course are required reading (but are on reserve):

Foodborne Pathogens: Risks and Consequences - CAST: Council for Agricultural Science and Technology 1994

Control of Communicable Diseases in Man, 18th edition APHA press
(December 30, 2004) David Heymann. The 17th edition will be OK.

Other material will be handed out in class or available on the Blackboard

web site (see **Blackboard Web Site**).

Note: if you have not already done so, please join the GSPH listserv to get important student announcements. Instructions for listserv may be found near student mailboxes.

Blackboard Web Site

The web site for this course may be found at <http://blackboard.sdsu.edu>. You must be able to access this web site and have a login password. Contact me if you have problems. If you have an old system on your home computer, you will need to access Blackboard from on-campus computing labs.

Privacy Issues:

Blackboard does not provide email addresses in the roster unless a student chooses to share one. To make email addresses visible to the rest of the class, students must go into the Personal Information area from either the Student Tools area of the course, or from the Tools box on the My SDSU page and click on Privacy Options.

Students can choose what information they would like to share with the class, or obtain a student email account, rather than share work email addresses.

The class website contains:

Announcements and reminders

Syllabus and updates

Assignments

Web links to assigned reading

Discussion boards

Exam scores (for your eyes only)

Field Trips

We will be taking field trips to practitioners in environmental health in this course. Students will need to sign a form provided in class in order to participate.

Research Paper

A research paper is required for completion of this course and is described in a separate document. That document is available on blackboard and is part of this syllabus.

Important Dates:

- Mar 7 Research Topics Due
- Mar 28 Draft Bibliographies Due
- Apr 18 Final Research Paper Due
- May 2 & 9 Class Presentations – at the beginning of class (10 am)

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Revision #1 — 2/2/2007

Class 1 **Jan 24** Introduction

Class 2 **Jan 31** Food Borne Illness

Class 3 **Feb 7** Food Hazard Analysis - HACCP
Presentation by Dept. of Environmental Health - Ric Encarnacion MPH REHS

Class 4 **Feb 14** Molecular Methods
Presentation by Dr. PJE Quintana

Class 5 **Feb 21** Laboratory Visit
Field Trip #1 -**Meet at Public Health Laboratory** - Find Directions on Blackboard

Class 6 **Feb 28** Food Borne Illness Investigations
CCP Assignment Due

Class 7 **Mar 7** **Midterm 1**
Research Paper Topics Due

Class 8 **Mar 14** Solid Waste Tour
Field Trip #2-**meet at EDCO Recycling** in Lemon Grove

Mar 21 *Spring Break*

Class 9 **Mar 28** Vector Disease
Investigation
Draft Bibliographies Due

Class 10 **Apr 4** Vector Borne Disease
Presentation by Mike Medina

Class 11 **Apr 11** Solid Waste Issues

Class 12 **Apr 18** Solid Waste
Control
Research Papers Due

Class 13 **Apr 25** **Midterm 2**

Class 14 **May 2** Class Presentations

Class 15 **May 9** Class Presentations

Note: this schedule is subject to change from time-to-time without notice. Changes in class order or due dates, if any, will be communicated in class and on the blackboard.