

# Conducting an Outbreak Investigation

*Center for Infectious Disease Preparedness  
UC Berkeley School of Public Health  
Syllabus for PH 298 (12) CC# 76734  
Fall 2004, Modified 10/18/2004*

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## **INSTRUCTORS:**

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**COURSE DESCRIPTION:** This is a half-semester introduction to public health surveillance and conducting an epidemiologic outbreak investigation. This course will focus on core basics of surveillance, screening, outbreak detection, case investigation, hypothesis generation, study design and hypothesis testing, and communicating findings.

**TARGET AUDIENCES:** This course is intended for public health practitioners with limited training or experience in field outbreak investigations, and might include public health nurses, communicable disease investigators, epidemiologists, bioterrorism coordinators, emergency medical specialists, and environmental health specialists.

**COURSE PREREQUISITES:** None. (If no previous epidemiology training, completion of Essentials of Public Health Epidemiology given in the first-half semester is recommended.)

**COURSE OBJECTIVES:** Upon completion of this course, participants will be able to:

- Describe types and goals of public health surveillance
- Describe the components of a case investigation including creating a case definition and orienting case data by person, place, and time.
- Describe methods to develop hypotheses in the context of an outbreak
- Describe how to design and conduct an analytic study to test hypotheses
- Know how to analyze and interpret data from an epidemiologic field investigation
- Describe the overall approaches to surveillance, screening, and outbreak investigation

**COURSE FORMAT:** Lecture and discussion

**COURSE ENROLLMENT & FEE:** To enroll in this course just show up to the first day of class. This course is FREE to public health practitioners (except for books and materials). CIDP follows the UC Berkeley academic calendar. For the complete Academic Calendar, go to <http://opa.vcbf.berkeley.edu/AcademicCalendar/calendar.cfm>. Registered UC Berkeley students are welcome and encouraged to enroll in these classes (be sure to meet the usual semester registration deadlines even for courses that are offered in 2nd half semester). Non-registered students who want to receive academic credit will need to register and pay the UC Extension fee (see <http://www.unex.berkeley.edu/info/concur.html>).

**COURSE CREDIT/GRADING:** Units: 1; Grading: P/NP; **Nursing CEUs and Physicians CMEs available**

**COURSE LOCATION & SCHEDULE:** Tuesdays, 10:30am-12pm, 1918 University Avenue, 4th Floor.

**COURSE BOOKS:**

- Gregg M, *Field Epidemiology*, Oxford University Press; 2nd edition (April 15, 2002)
- Class handouts

**COURSE REQUIREMENTS AND EVALUATION:**

- Review class handouts and selected chapters from textbook at home
- Class attendance and participation

**COURSE SCHEDULE OUTLINE**

<b>Date</b>	<b>Wk</b>	<b>Topics</b>	<b>Lecturer</b>	<b>Reading</b>
10/26/04	1	Exercise: Pretest Lecture: Public Health Surveillance	Mohle-Boetani	Part 1 of Exercise 1 Chapter 3 Field Epi
11/02/04	2	Exercise 1: Paralytic Illness in Ababo Lecture: Steps of an outbreak Investigation	Mohle-Boetani	Part 1 of Exercise 2 Chapters 5/6 Field Epi
11/09/04	3	Exercise 2: Oswego Lecture: Study Design	Mohle-Boetani	Part 1 of Exercise 3 Chapters 7/8 Field Epi
11/16/04	4	Exercise 3: Smoking and Lung Cancer Lecture: Bias/Analytic Issues	Mohle-Boetani	Part 1 of Exercise 4 Chapters 7/8 Field Epi
11/23/04	5	Exercise 4: Oral Contraceptives and ovarian CA Lecture: Screening	Mohle-Boetani	Handouts of selected publications
11/30/04	6	Exercise 5: Screening for HIV infection Lecture: Presentation of Findings	Guest Lecture	Review all Lecture Notes and Exercises Chapter 10
12/07/04	7	Lecture: Review Major Concepts of Surveillance and Outbreak Investigations Post Test	Mohle-Boetani	Enjoy the semester break

**GRADING ASSIGNMENT:**

Pass will be assigned for achieving a passing grade on the post-test.

**ADDITIONAL READINGS & RESOURCES:**

- Public Health Training Network modules at <http://www.phppo.cdc.gov/PHTN/casestudies.htm>
- FOCUS on Field Epidemiology newsletter at <http://www.sph.unc.edu/nccphp/focus/index.htm>
- Academic Centers for Public Health Preparedness, Association of Schools of Public Health, at <http://www.asph.org/acphp/index.cfm>



## **CONTINUING EDUCATION UNITS:**

**Physicians:** This is an activity offered by the **California Department of Health Services**, a CMA-accredited provider. Physicians attending this course may report up to 10.5 hours of Category 1 credits toward the California Medical Association's Certificate in Continuing Medical Education and the American Medical Association's Physician Recognition Award.

**Registered Nurses:** The **California Department of Health Services** is approved as a provider of continuing education by the California State Board of Registered Nursing, Provider #00584 . This activity has been approved for 12.6 contact hours of continuing education.