

SAN DIEGO STATE UNIVERSITY
College of Health and Human Services
Graduate School of Public Health
Division of Epidemiology and Biostatistics

PH 601: Epidemiology
Spring 2007

Day: Monday

Time: 7:00 PM -9:40 PM

Place: HT 183

Schedule #: 24990

Instructors: Danyte Mockus

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Susan Eskridge

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REQUIRED TEXTS:

-Gordis, Leon. *Epidemiology 3rd Ed.* Philadelphia, W.B.Saunders Co. 2004

-Additional readings as noted on syllabus.

OPTIONAL TEXTS:

-Rothman, K.J. and Greenland, S., *Modern Epidemiology*, 2nd ed., 1998.

-Last JM., *A Dictionary of Epidemiology*, 2nd ed., 1988.

GRADING POLICY:

Basis of Grade:

Midterm/Terms Exam:	25%
Four Problem Sets (and pop quiz):	25%
Article Review:	15%
Final Exam:	35%

Grading Standards and Interpretation of Grades:

A = Superior (93-100)

A- = 90-92

B+ = 88-89

B = Adequate (82-87)

B- = 79-81

C = Less than adequate (60-78)

F = Fail (<60)

Goals of the Course:

1. To gain an understanding of the basic epidemiologic concepts and methods.
2. To apply epidemiologic concepts to evaluate the distribution and determinants of disease in the population.
3. To utilize epidemiologic concepts in further academic studies and professional practice.
4. To interpret and evaluate the validity and reliability of epidemiologic studies.

Learning Objectives

1. Interpret the distribution of disease in a population according to time, place, and person.
2. Describe the basic study designs used in epidemiologic research, i.e., experimental, observational, cross-sectional, case-control, prospective, ecological, and cohort and the analytic techniques applicable to each design.
3. Explain the fundamental epidemiologic concepts of natural history of disease, prevalence, incidence, rates, relative risk, attributable risk, direct and indirect standardization of rates, standardized mortality ratio. precision, bias, validity, accuracy, and confounding.
4. Explain and apply methods of standardization or adjustment for factors such as age or gender in a study population.
5. Explain major categories of bias, assess the potential for their occurrence in specific study situations, and propose methods to evaluate and/or reduce their influence on the measures of major interest.
6. Evaluate the evidence in favor of and against the likelihood that an association observed in epidemiologic studies is causal.
7. Describe the steps in the investigation of an outbreak.

Tentative Course Schedule

- Jan 22 Topics: Course Outline, Introduction to Epidemiology, History of Epidemiology, Fundamentals of Epidemiology
- Jan 29 Preparation: Gordis-Chapters 1 & 14,
Define Terms.
Fundamentals of Epidemiology (cont), Terms Review
- Feb 5 Preparation: Gordis-Chapter 3, 4
Read Assigned Article.
Topics: Sources of Data, Causation, Terms Review, Measures of Frequency, Rates.
- Feb 12 Preparation: Gordis-Chapters 11 & 12.
Topic: Analysis of Vital Statistics, and Review
of Journal Article, Effect and Association
- Feb 19 Preparation: Gordis-Chapters 10, 14
Topics: Effect and Association (Cont), Types
of Studies, Cross Sectional Studies, and Ecological
Studies.
Due: Problem Set #1. Review questions: Chapter 4
- Feb 26 Preparation: Gordis-Chapter 9 & 13.
Topic: Cohort Studies, Case Control Studies.
Due: Problem Set #2.

