CALIFORNIA STATE UNIVERSITY, FRESNO
DEPARTMENT OF HEALTH SCIENCE

Fall 2004
HS 109 Epidemiology of Disease

Instructor: Vickie Krenz, Ph.D., M.S.P.H.
Office: San Ramon 2, Room 31 278-2684
Office Hours: Mondays and Wednesdays, 10:00 a.m. - 10:50 a.m.
Thursdays, 11:00 a.m. - 12:00 p.m.
On-line: Tuesdays, 8:00 - 9:00 p.m.

Catalog Description: Modern concepts and principles of epidemiology; interaction of all agents, host and environmental factors of communicable disease; problems of the aged.

Course Objectives: This course is designed to provide a comprehensive introduction to the science of epidemiology for public health professionals. Core concepts will include (but not be limited to): Host/agent/environment interaction, morbidity, mortality, epidemiologic study design, the historical context of public health, and future trends in epidemiology. The ethical and moral responsibilities of health research as well as the social and political context of epidemiology will be examined. By the completion of the course, each student will be able to comprehend and critically evaluate published public health data and analysis for their significance, relevance and appropriateness. Students will also have the necessary skills to collect and analyze basic epidemiologic data.

Note: As an introductory course in epidemiology, this course will deal with many aspects of public health, including controversial issues. Expect examples or discussion on race, ethnicity, age, gender, tobacco, alcohol, drugs, cancer, abortion, patient’s rights, sex, sexually transmitted diseases, and more.

Problem sets: There will be four problem sets designed as preparatory examples, one problem set for each exam. Prior to each exam, class time will be devoted to discussion of the problem set. At the time of the first discussion period for a particular problem set, each student’s problem set will be evaluated for completion/attempted completion. The problem sets are worth 25 pts each, with credit awarded for completion rather than correctness (the problem sets are designed as a study aid rather than as an assessment tool). Correct answers for the problem sets will be discussed during the designated class period/s and will be posted after the first discussion day (but before the test). No points will be awarded for problem sets that are late.


Examinations: There will be four tests given in this class, each worth 50 points (for a total of 200 pts.) Each exam will consist of multiple-choice questions and short answer sections that
may require use of epidemiologic calculations. Each exam will be open book. You will not need any scantron forms for this section of HS 109). It is recommended that all students have a calculator available during the tests.

Allowable material during an open book test include the textbook, all problem sets, any handouts, any notes made by the student and other materials that the instructor decides is acceptable. Other textbooks and old exams are not acceptable materials during an open book exam, as well as any other materials the instructor decides are inappropriate. The use of unacceptable materials during an exam will be considered cheating with commensurate punishment.

Grading: Your final score will be based on 200 points for course exams and 100 points from the problem sets. There is a total of 300 points possible in this course. Your final grade will be based on the following scale:

- A = 90% or higher of total points
- B = 80% - 89.9% of total points
- C = 70% - 79.9% of total points
- D = 60% - 69.9% of total points
- F = 59% or lower of total points

Missed exams and late assignments: Make-up exams must be scheduled with the instructor ahead of time in all cases involving an absence that can be reasonably anticipated (team competition, medical procedure, job interview, etc.). In cases of unanticipated emergency or serious illness, the instructor should be notified as quickly as possible (preferably by email) and written confirmation of the situation may be requested (i.e., note from your doctor, University Health Services, etc.). Late problem set will not be awarded any points (see above).

Website/Online Course Enhancement: This course will be “enhanced” by a website designed to facilitate student/instructor communication and the distribution of materials necessary for course completion. This website will include a means of communicating with the instructor and a location where handouts will be made available for download (including all problem sets). Once constructed, every student will be expected to access this website on a regular basis and will be expected to be knowledgeable of any updates made to the website or the materials therein.

Cheating and Plagiarism: The University has a written policy on cheating and plagiarism which includes specific steps that will be taken in the event that an incident of cheating or plagiarism is suspected or alleged. The full text of the document is available in the Vice President for Student Affairs Office, Joyal Administration Building, Room 262. Below are the University’s definitions for cheating and plagiarism:

- **Cheating** is the practice of fraudulent or deceptive acts for the purpose of improving one’s grade or obtaining course credit. Typically, such acts occur in relation to examinations. It is the intent of this definition that the term “cheating” not be limited to examination situations only, but that is included in all actions by a student that
are intended to gain an unearned academic advantage by fraudulent or deceptive means.

- **Plagiarism** is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material so used as one’s own work. (Please note: failure to properly cite one’s references is plagiarism!)

**University’s Policy regarding Conduct in Classes:** This class follows the university policy on student conduct in classes, cheating and plagiarism located in the Catalog and the Schedule of Courses.

**University Computer Requirement:** The use of technology, including obtaining internet based materials, completion of on-line activities, etc., is a requirement of this class. Students are required to have basic computer skills and to inform the instructor incase they lack those skills. At California State University, Fresno, computers and communications links to remote resources are recognized as being integral to the education and research experience. Every student is required to have his/her own computer or have other personal access to a workstation (including a modem and a printer) with all the recommended software. The minimum and recommended standards for workstations and software, which may vary by academic major, are updated periodically and are available from Information Technology Services ([http://www.csufresno.edu/ITS](http://www.csufresno.edu/ITS)) or the University Bookstore. In the curriculum and class assignments, students are presumed to have 24-hour access to a computer workstation and the necessary communication links to the University’s information resources. The University maintains a limited number of workstations in various labs to facilitate this access. It provides the means to allow students access from their home environment to the University computing and network resources and to the Internet.

**Exam and Class Assignments Return Policy:** Please note that it may take up to two weeks for Dr. Krenz to return your exams and other classes activities to you. If you have not receive them within that time frame be sure to check with Dr. Krenz.

**Students with Disabilities:** The University is committed to providing every reasonable academic accommodation to students with disabilities. Individuals with physical, perceptual, or learning disabilities, should contact Services for Students with Disabilities for information regarding accommodations such as: disability verification and management, testing accommodations, note-taking, sign language interpreting, reading services, and other appropriate services. Contact the Services for Students with Disabilities at (559) 278-2811 or TDD (59) 278-3084. The student should also talk with the instructor during the first week to let her know of her/his particular needs.
# Tentative Schedule

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<th>Week</th>
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<tr>
<td>Week 1</td>
<td>Aug. 24, 26</td>
<td>Introduction to course</td>
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| Week 2| Aug. 31 -  
Sept. 2 | Ch. 1, The History and Scope of Epidemiology                            |
| Week 3| Sept. 7, 9  | Ch. 2, Practical applications of Epidemiology                           |
| Week 4| Sept. 14, 16| Problem Set 1 due (9/14)  
Discuss Problem Set 1  
Test #1 (9/16) - Chs. 1, 2                                               |
| Week 5| Sept. 21, 23| Ch. 3, Measures of Morbidity and Mortality Used in Epidemiology - Counts, Proportion, Ratio, & Rate |
| Week 6| Sept. 28, 30| Ch. 3, Measures of Morbidity and Mortality Used in Epidemiology (cont.)  |
| Week 7| Oct. 5, 7  | Ch. 3, Measures of Morbidity and Mortality Used in Epidemiology (cont.)  
Problem Set 2 due (10/5)  
Discuss Problem Set 2                                                     |
| Week 8| Oct. 12, 14 | Test #2 (10/2) - Ch. 3  
Ch. 4, Descriptive Epidemiology: Person, Place, Time                     |
| Week 9| Oct. 19, 21 | Ch. 5, Sources of Data for use in Epidemiology  
Ch. 6, Study Designs: Ecologic, Cross-sectional, Case-Control               |
| Week 10| Oct. 26, 28 | Ch. 6, Study Designs: Ecologic, Cross-sectional, Case-Control (cont.)     |
| Week 11| Nov. 2, 4  | Problem Set 3 due (11/2)  
Discuss Problem Set 3  
Test #3 (11/4) - Chs. 4, 5, 6                                             |
| Week 12| Nov. 9, 11 | Ch. 7, Study Designs: Cohort Studies  
Ch. 8, Experimental Study Designs                                           |
| Week 13| Nov. 16, 18| Chs. 9, Measures of Effect  
Ch. 10, Data Interpretation Issues                                          |
| Week 14| Nov. 23, 25| Ch. 11, Screening for Disease in the Community  
Thanksgiving Break (11/25) - No Class                                       |
| Week 15| Nov. 30 -  
Dec. 2 | Ch. 12, Epidemiology of Infectious Disease  
Chs. 13-15, Applications of Epidemiology                                   |
| Week 16| Dec. 7     | Problem Set 4 due (12/7)  
Discussion Problem Set 4                                                   |
|       | Dec. 9, 10 | Faculty Consultation Days - No Class                                     |
|       | Dec. 14   | Final Exam (Test #4) - Chs. 7-15 11:30 a.m. - 1:30 p.m.                 |