Course Description (principal topics covered):

Objectives:
The major objectives of this introductory course in epidemiology are to familiarize the student with how epidemiology contributes to:

- The understanding of the causes and natural course of disease of all kinds
- The control of disease in human populations
- Scientific judgment and inquiry in public health problems

Content:
The course will cover the following critical areas of epidemiology:

1. Characterizing and describing disease or injury by person, place, time, and by agent, host, or environment.
2. Measuring and describing health problems in population groups, including incidence, prevalence, morbidity/mortality rates, and vital statistics.
3. Understanding and utilizing approaches to epidemics of known and unknown etiologies.
4. Recognizing epidemiological study designs such as ecologic, cross-sectional, cohort, case-control, and experimental studies.
5. Calculating measures of association between risk factors and health outcomes (including interpretation and significance).
6. Formulating hypotheses from descriptive studies and evaluate hypotheses using cohort or experimental studies.
7. Understanding and interpreting basic measures of validity.

The course will also cover basic epidemiologic terms and principles.

Prerequisites/Recommended Background:

Upper division standing in Biology
BIOL 201 (Cell Function) and 202 (Genetics)
BIOL 361 (General Microbiology) would be helpful, but not required

Required Texts/References:

A reader will also be available that contains the critical course notes and supplemental readings.

Course Work/Expectations:

Attendance & participation in 1 weekly lecture/discussion
Two mid-term exams
Completion of a research paper and/or in-class presentation on a recent article of epidemiologic importance
Final exam

Comments: