

UNC-Chapel Hill, School of Public Health
EPID 785, Environmental Epidemiology
Fall 2006
11:00am-12:15pm
Michael Hooker Rm3100

Instructor

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Brief Description:

This course is designed for graduate students who will conduct, collaborate in, or interpret the results of environmental epidemiologic research. All classes in this course will be given as lectures and case study seminars with class discussion. Students are introduced to epidemiologic principles and methods applied to evaluation and control of human health consequences of environmental hazards. Pollution of environmental media and global change are considered from a human-ecological perspective, with local and international examples. After completing this course, students are expected to be able to critically review epidemiologic evidence on environmental health hazards and demonstrate the capability of applying epidemiologic principles and methods to study environmental hazards of scientific interests and public health significance.

Course Materials

(1) Textbook:

Although not required, the following are "recommended" texts for Epid785 and they cover the fundamental reading materials for environmental epidemiologic principles and exposure assessment.

Title: Topics in environmental epidemiology / edited by Kyle Steenland, David A. Savitz.
Publisher : New York : Oxford University Press, 1997.

Title : Exposure assessment in occupational and environmental epidemiology / edited by Mark J. Nieuwenhuijsen. Publisher : Oxford : Oxford University Press, 2003.

(2) Selected papers and other supplementary documents:
To be assembled and posted on the Blackboard.

(3) Lecture slides:

To be posted on the Blackboard if available.

Student Evaluation

Class Participation: (20%)

Students are expected to attend and participate in all classes. Class discussions are an important learning component of the course. In addition to participating in possible class discussions for lectures throughout the course, students will be working in groups and leading discussion for one case study seminar. Seminars typically focus on critique and interpretation of published research in environmental epidemiology. Facilitators are expected to read the assigned materials thoroughly, identify key issues in consultation with the instructor, and lead class discussions.

Home Work (40%)

There will be four written homework assignments, one for each case study seminar following outlines indicated in the *Case Study Critique Form*. Each assignment is due at the start of class. If you will miss a class, the assignment is due before class. No assignment may be handed in late. You are encouraged to work together in groups to discuss the homework readings, but you must individually write your own answers to each homework assignment. Assignments will be graded up to 100 points (Format: All homework assignments must be in 10 point or larger font [larger is better] and 2 pages or less, using at least 1 inch margins and single spacing).

Group Project (40%)

Students will work in teams (of 3-4 persons) to develop an epidemiologic research proposal on environmental health problems. The groups will be formed early in the semester. The assigned group membership, as determined by the instructor, will seek balance of students' prior academic and professional experiences. Group members have to meet and determine the potential topics and then send the tentative title to the instructor for approval (**by Oct. 17**). The development of research proposal should include sections on *Background and Significance*, *Specific Aims and Hypotheses*, and *Research Plans*. The *Research Plans* should include description of the study design, strategies for selecting the study population or extant data sources, measurement of exposure, health outcome, and other relevant variables, and data analysis and interpretation. Each group's work will first be presented to the class to solicit comments. After the presentation, the group project should turn into a course paper of no more than 15 pages (not including tables and references) is due at the end of the semester. Students are expected to address a current research subject in environmental epidemiology. Relevant topics can be motivated by case study seminars, or tailored to students' special interests. Students are encouraged to meet with the instructor to discuss the potential topics. If all group members enjoy challenges, students may also choose relevant epidemiologic methods topics of special importance to environmental health research. Different formats of presentation and contents of final paper will be allowed for more methodology-oriented topics, but interested group(s) should obtain the instructor's approval in advance. One-page summary of the theme and outlines of the final paper should be submitted by **Nov. 02**. Papers submitted in the form of research proposals should follow the standard format used for NIH grants (form PHS-398), but only the scientific portions of the proposal are required (i.e., *Specific Aims*, *Background & Significance* and *Research Plan*, NOT budget or personnel pages). The final paper is due on **Dec. 07**.

Final Grading:

<60.0	F
60.0 – 74.9	L
75.0 – 89.9	P
≥90.0	H

The overall course grades will be based on the weighted average of student's performance in each of the above-mentioned categories.

Honor Code: Students are reminded that all work performed at UNC, is governed by the Honor Code. The Honor Code permits collaborative work, but means that all members of a group must be acknowledged as contributors, even in written materials prepared by one individual. As always, individual assignments must be the original work of the author, and intellectual contributions of others, whether written or oral, must be properly attributed. Consult the instructor if you have doubts about how to handle a particular contribution. If further information is needed, the text of the Instrument of Student Judicial Governance is available on the UNC web site at www.unc.edu/student/policies/isjg/ or from the Dean of Students.