Summary of course

**Purpose of the course.** This course will introduce the methodological aspects of epidemiologic research in the field of aging and to critically evaluate research in older adults. The course will focus on: demography, study design, sampling, recruitment, retention, measurement of key variables and special populations. Students will write a critical review of a published article and comment on proposed future directions for epidemiologic studies addressing these questions in older populations. Throughout the course, a Problem Solving Learning Method will be applied by prompting the students to solve pragmatic issues. Examples include: How to measure a specific outcome? What type of chronic health conditions may be related to the research question? How to operationalize specific measures of interest (e.g.: how to create a composite score for co-morbidity assessment?). The course has been formulated to provide the students with the "building blocks" of the epidemiological study of aging. By the end of the course, the students will be able to critically evaluate various components of a study to further address the research questions in aging populations.

**Field work.** The student will become familiar with the ongoing studies at the Bellefield Clinic and/or the Mon Valley Clinic. Activities of the field work will consist of: an observation of an actual clinic research evaluation for these major studies and review of the manual of operations. Field work at the research clinic will consolidate the theoretical knowledge of the research methodology as the student will personally experience the components of a real visit for an epidemiological study of aging. Students will also write a brief evaluation of one methodology, including a literature review of the test characteristics of the methodology and alternative approaches.

**Teaching/Learning Objectives.**

**Goal 1: To develop an understanding of the methodological aspects of epidemiologic research in aging.**

When critiquing cohort studies and clinical trials in aging, students will identify and discuss concerns specific to the study of older adults.

**Goal 2: To gain an appreciation for the practical components of studies currently in the field.**

When observing a clinic visit, students will consult the manual of operations (MOP) for the study with the goal of correlating the practical aspects of the clinic visit with the MOP and the current literature.
Goal 3: To be able to critically review the various components of 2 published articles and recommend how to extend existing research in order to address epidemiologic questions in aging populations.

Student will write a critical review of a published article and comment on proposed future directions for epidemiologic studies addressing these questions in older populations. The fieldwork experience and class workshops will develop skills of critical review of existing research in order to further address epidemiologic questions in aging populations.

Texts: Recommended (not required)
Textbooks for background information are on reserve for the course at Falk Library. Copies are also available in the offices of the course directors or from the teaching assistants.


Epidemiology of Aging: An Ecological Approach, WA Satariano, Jones and Barlett Publishers, Inc. 2006.


Supplemental Readings/Bibliography

1. Journal Articles:
   References will be provided for individual classes.

Student Performance Evaluation (Factors and Weights)

1) Field work (attendance and submit written report): 20%

Scores are weighted as follows:
- Description of study measurement using MOP = 20%
- Critical discussion of advantages and disadvantages of study measurement = 20%
- Consult literature to identify similar study measures and discuss strengths and limitations = 30%
- In-class presentation = 30%

Several other optional field work opportunities will be available to interested students.

2) Written critiques of epidemiologic studies: 20%

3) Written critical review and comment: 40%

Scores are weighted as follows:
- Addresses a research question of public health significance in older adults = 15%
- Critical review of a published article = 35%
- Proposes future directions for epidemiologic studies addressing these questions in older populations, including but not limited to the following issues: population, screening, consent, recruitment, retention, events = 50%

4) In-class participation for quizzes, workshops and presentation of research project proposal: 20%

Assignment/Project Description
The assignments in this course include written critiques of 2 important epidemiological studies of aging, readings with structured observations of many of the methods reviewed in the course, structured written reports and presentations of methods observed during field work and critical review and comment to further address a research question in aging populations.

1. Readings:
Students will read key papers that illustrate important methods needed to conduct studies in older adults.

2. Fieldwork:
Students will observe one of the studies which are currently in the field for observation. The teaching assistants will organize the schedule for these observations. Each student is expected to observe the clinic visit, including, if possible, the consenting process. The student is expected to consult the Manual of operations and correlate the practical aspects of the clinic visit with the MOP forms and the current literature.

3. Presentations and written reports:
   a. Each student will prepare a written critique of papers that address important methodological issues for 1) clinical trials in older adults, and 2) observation cohort studies of older adults. The studies will be discussed in class.
   b. Each student will prepare a written report regarding the studies that were observed during field work and this will be presented orally in class. The report will focus on one specific exam procedure that the student has observed during the field work. The report will: summarize and describe the exam procedure by using the information in the MOP and personal observation of the exam, compare this method with other similar methods by consulting literature, describe reproducibility of the procedure, discuss the strengths and limitations of the procedure.
   c. During the course, each student will write a critical review of a published manuscript and comment on proposed future directions for epidemiologic studies addressing these questions in older populations. Guidelines for furthering a research question to address issues in older populations will be discussed in class. A formal critique and comment will be submitted in writing and it will also be presented orally in class.

4. Other:
Additional readings, observations and discussions will be conducted in class, thus points will be assigned for participation in the in-class workshops. Quizzes will be given regularly as a review of critical information from the lectures. Credit is given for completion of the quiz rather than correct answers.

Grading Scale
The scale to be applied in grading will be as follows:
90%-100%  A
80-89%    B
70-79%    C
60-69%    D
< 60%     F

CourseWeb/BlackBoard Instruction
The instructors will be using the University's CourseWeb (Blackboard) for instructional support: reading material will be available from download from the Blackboard. Students are expected to download reading material and handouts prior to each class an also to consult the Blackboard for announcements.

Accommodation for Students with Disabilities
If you have any disability for which you may require accommodation, you are encouraged to notify both your instructor and the Office of Disability Resources and Services, 216 William Pitt Union (412-648-7890) during the first two weeks of the term.

Academic Integrity
All students are expected to adhere to the school's standards of academic honesty. Any work submitted by a student for evaluation must represent his/her own intellectual contribution and efforts. The GSPH policy on academic integrity, approved by EPCC on 10/14/08, which is based on the University policy, is available online at http://www.publichealth.pitt.edu/interior.php?pageID=126. The policy includes obligations for faculty and students, procedures for adjudicating violations, and other critical information. Please take the time to read this policy.
Students committing acts of academic dishonesty, including plagiarism, unauthorized collaboration on assignments, cheating on exams, misrepresentation of data, and facilitating dishonesty by others, will receive sanctions appropriate to the violation(s) committed. Sanctions include, but are not limited to, reduction of a grade for an assignment or a course, failure of a course, and dismissal from GSPH.

All student violations of academic integrity must be documented by the appropriate faculty member; this documentation will be kept in a confidential student file maintained by the GSPH Office of Student Affairs. If a sanction for a violation is agreed upon by the student and instructor, the record of this agreement will be expunged from the student file upon the student's graduation. If the case is referred to the GSPH Academic Integrity Hearing Board, a record will remain in the student's permanent file.