Research Methods for Human Population Studies  
Course No. BE 8082 and PH 8082

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Susan.pinney@uc.edu

Please use only my UC email addresses (not CCHMC email addresses).

Please make sure you are registered under the correct course number.

• ONLY MPH program matriculated students should be registered under PH 8082.
• All other students should be registered under BE 8082.
• You can change this in ONE STOP.

Class: Monday 3:00 – 5:50 pm  
Room G17 Kettering

Office Hours: Arranged individually

Course Description: This course provides the student with an understanding of the methods for undertaking health research conducted in human populations. The course is structured around the selection and appropriate implementation of methods of sampling, participant recruitment and retention, data collection (such as questionnaires and interviews), measurements, biospecimen procurement and initial processing, and information dissemination.

Course Learning Objectives:
At the end of the course, students will be able to achieve the following goals/competencies:

1. Develop a conceptual framework for a study and generate testable hypotheses.

2. Select a study design that is compatible with the research question, the population available, the appropriateness of the methods, and the funds available.

3. Understand various research methods and their appropriate application to a selected study design.

4. Describe and evaluate various study designs used to conduct research, including their inherent threats to internal and external validity.

5. Develop a sampling plan for conducting research, including the key elements for sample size and basic power calculations.

6. Design and implement recruitment and retention plans suitable to the study population of interest.

7. Describe the basic issues related to measurement of variables and identify problems with measurement reliability and validity.
8. Understand the processes of data collection and potential problems, including ethical
issues.

9. Be able to share research findings in appropriate venues.

**Pre-requisites:**
None. Graduate Standing.

**Course Requirements:**
1. Weekly reading assignments, class attendance, and class participation. Much of the
subtle finer points of research methods development will come from the oral exchange in
class. Your learning will be proportional to your participation. If you are on call please put
phone/pagers on vibrate. If you are going to miss a class due to another commitment,
please inform Dr. Pinney at least one day prior to the class.

2. Active participation with your study group.

3. Submission of homework assignments. Homework is designed to provide you with
ongoing feedback.

4. Possible quizzes.

5. Final project.

6. Grade distribution. There are a number of small assignments in this course, worth a
total 400 possible points.

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<th>Assignment</th>
<th>Team or Individual</th>
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**Grading:**
[http://www.uc.edu/registrar/faculty_resources/grading_scales.html](http://www.uc.edu/registrar/faculty_resources/grading_scales.html)

**Learning approach:**
The instructor will facilitate learning through lectures, discussion, case studies, and other interactive classroom or online activities. Students will be required to complete skill-building assignments, participate in class discussions and activities, read the assigned textbook and published papers and a final project.

**Academic Ethics:** The faculty of the Department of Environmental Health believe that the conduct of a student taking a course in the Department should be consistent with that of a professional individual. All students in this course will be expected to conduct themselves with complete integrity. All work by the student will be the work of that student, unless otherwise referenced. New research ideas presented during the class are the intellectual property of the faculty member or student who presented them.

**Course policies and procedures:**

1. If you have any special needs related to your participation in this course, including identified visual impairment, hearing impairment, physical impairment, communication disorder, and/or specific learning disability that may influence your performance in this course, you should meet with the instructor to arrange for reasonable provisions to ensure an equitable opportunity to meet all the requirements of this course. At the discretion of the instructor, some accommodations may require prior approval of Disability Services.

2. Make-up assignments are strongly discouraged – Only in exceptional cases such as a serious medical emergency (authenticated by written note from a physician) will the instructor discuss such possibilities and decide on a case-by-case basis.

3. All enrolled students have access to online BlackBoard site of the course. The syllabus will be posted in the Course Information section of the Black Board. The students must check the Announcements section regularly.
4. With prior notice through the **Announcements** section some of the classes may be taught *asynchronously* on **BlackBoard** and the students will be required to complete assigned tasks and participate in online **Discussion Forum** during that week.

5. Attendance will be taken. You are allowed two excused class absences.

6. The university rules, including the Student Code of Conduct, and other documented policies of the department, college, and university related to academic integrity will be enforced. Any violation of these regulations including acts of plagiarism or cheating will be dealt with on an individual basis according to the severity of the misconduct.