EPIDEMIOLOGY 726 - EPIDEMIOLOGIC RESEARCH METHODS

Spring 2009 Syllabus

TIME: Tuesdays and Thursdays, 11:00am – 12:15pm

LECTURE LOCATION: 1305 McGavran-Greenberg

SMALL GROUP LOCATION:
Gammon: EPID Conference Room
Heiss: MHRC 0015
Meshnick: MHRC 3100

INSTRUCTORS:

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OBJECTIVES: The course is designed to apply the principles and methods learned in introductory epidemiology, epidemiologic methods, and biostatistics courses to the design of epidemiologic studies. In EPID 725, you learned the structure of a National Institutes of Health (NIH) grant, identified a research topic, outlined a proposed study, and developed study aims. In EPID 726 we will emphasize study design and implementation strategies, rather than methods of statistical analysis that are addressed in other courses.

Proposal development requires attention to an array of substantive and methodological concerns in order to propose an informative, realistic, and scientifically justified study. To maximize the educational experience, it is essential that there be some primary data collection included in the study, e.g., interviews, laboratory assays, or record abstraction. Ancillary studies are acceptable.

COURSE STRUCTURE: The course is organized into complementary "large group" lectures and "small group" sessions. Lectures are presented by faculty instructors and focus on critical issues you will confront during proposal development. They are intended to provide you with tools and resources for addressing these issues. Your small groups again provide an opportunity for you to discuss your progress with an instructor and other students.

The order of sessions is designed to follow the general sequence of developing a research proposal. Please be aware, however, that you need not wait until a particular component is addressed to begin exploring it. For example, one cannot estimate sample size until deciding on study design, measurements, and analysis methods. Consequently, you will need to work on many sections of the proposal simultaneously, rather than in strict sequence. This is also an iterative process because modifications must be reconciled with other sections. Therefore ample time is required for the finished product.

SMALL GROUPS: Your small group will typically contain the same members as it did for EPID 725, with approximately 10 students per small group matched to the extent possible with the interests of the faculty. It is desirable to maintain consistent groups to maximize group rapport. Group members can then become familiar with the other proposals in their group and discuss new issues with minimal review. If you are not pleased with your assignment, it is up to you to identify someone with whom you can potentially trade.

It is essential that you be an active participant in the small groups, both in presenting your proposal for discussion and in commenting on others' research. Each small group session has an accompanying assignment that must be completed prior to the group meeting and emailed to your small group (both the instructor and fellow students) by 5pm the day prior to meeting. For example if your group meets at 3:30pm on September 30th, your assignment must be emailed to group members by 5pm on September 29th. Make sure to have the shared version of your assignment on hand for reference during the group meeting. Assignments will not be graded, but they will be reviewed to verify their completion, stimulate participation, and ensure that you are working towards the timely completion of your proposal. You will be provided brief written comments on your assignments.

PEER-REVIEW: Two reviewers are assigned per student applicant, with one designated as the primary reviewer and the second as the secondary reviewer. All homework assignments are expected to be read by all students in a small group prior to the small group meeting, while the primary and secondary reviewer are expected to prepare written comments to be shared orally in class.

LATE POLICY: To give the primary and secondary reviewers sufficient time to review the assignments prior to class, students must submit their assignments to the entire small group (including the instructor) by 5 pm the day before the small group discussion, as stated above. Other submissions to the small group instructor (Sections 2-3, Peer Critique, and Final Submisson) and peer reviewer (Sections 2-5) must be submitted by 5 pm on the due date. Graded submissions that are late will be penalized 5% per day they are late. While individual assignments are not graded by instructors, continual late submissions to the group will be noted and your overall grade will be adjusted accordingly.

COURSE MATERIALS: Readings, assignments, lecture notes, and NIH forms will be accessible online at the course website (http://blackboard.unc.edu) or distributed during class. Examples of funded grant proposals written by course instructors and other members of the department have been placed in a folder on Blackboard. Refer to these frequently; selecting any sections of the proposals that are pertinent to the problems as you confront them. ***Please only use these grants for your reference and do not distribute them as they include confidential material and are not provided as public documents.***

WRITTEN PEER CRITIQUE: You will provide a written critique of Sections 2-5 for the two small group members whose progress you review on a regular basis. Each critique will be a maximum of two pages in length. The critique will be sent to both the author of the proposal you are reviewing and the small group instructor. There will then be a small group meeting to discuss feedback, with 10 minutes of discussion allotted per proposal.

GRADING: Grading has five components, each determined by your small group instructor.

10% Sections 2-3 of Research Proposal (Abstract, Specific Aims, Background & Significance)

10% Written Peer Critique

10% Class Participation & Small Group Participation

10% Oral Presentation

60% Final Research Proposal

We will emphasize the quality of the final proposal in evaluations, but some consideration will also be given to the amount of progress made over the course of the semester.

FINAL GRADES: To earn an H, the final proposal must be of sufficient quality to be submitted to NIH as an R01, R21, or R03 with minimal revisions. Proposals that would require some additional work will earn a P. Those that fall below this standard, or students with repeated poor performance on written assignments and/or chronically late submissions, can expect at best to receive an L. A very weak performance on multiple aspects may require repeating the course sequence.