

# EPIDEMIOLOGY 725 - EPIDEMIOLOGIC RESEARCH METHODS

## Fall 2009

**TIME:** Tuesdays 3:30-5:00pm

**MEETING DATES:** 9/1, 9/8, 9/15, 9/29, 10/13 (optional), 10/20, and 11/3

**LECTURE ROOM:** Rosenau 228 (except October 20: McGavran-Greenberg 1301)

### **INSTRUCTORS:**

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### **TEACHING ASSISTANT:**

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**OBJECTIVES:** In EPID 725, you will apply the principles learned in epidemiologic methods and biostatistics courses to the design of epidemiologic studies. Specific objectives include understanding the structure of a National Institutes of Health (NIH) grant, identifying a research topic, outlining a proposed study, and developing study aims.

EPID 726 (Spring 2010) will emphasize study design and implementation strategies, rather than methods of statistical analysis. 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 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. The small group sessions will 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:** There will be approximately 10 students per small group. In constructing the groups, we have found it useful to match students to the extent possible with the interests of the

faculty. You will complete a brief questionnaire (submitted to the TA) describing your background and research question to inform small group assignments. Once small group membership is defined, it is desirable to avoid changes which disrupt the 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 30<sup>th</sup>, your assignment must be emailed to group members by 5pm on September 29<sup>th</sup>. 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. For the peer review critique of the draft proposal, written comments need to be supplied by the primary reviewer only.

**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, especially sections of the proposals that are pertinent to the problems you encounter. ***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.***