PHC 7000-02HC: COURSE SYLLABUS

Epidemiology Seminar II. Critical Evaluation and Methods in Epidemiology.

Spring Semester - January 2015 Tuesdays 9:30 – 10:25; 2 credit hours

Instructors -

Robert L. Cook, MD, MPH
Professor of Epidemiology and Medicine
College of Public Health and Health Professions and College of Medicine
University of Florida, Gainesville FL 32610
cookrl@ufl.edu
Office hours by appointment. Contact Michele Rollen-Hanson 352-294-5672,
rollen@ufl.edu

Krishna Vaddiparti, PhD, MPE, MSW
Assistant Professor
Coordinator Fogarty Indo-US Training Program & MPH Program
Department of Epidemiology
College of Public Health & Health Professions & College of Medicine
University of Florida, Gainesville, FL 32611
Phone: 352-273-5746
kvaddiparti@ufl.edu

Description: This course is taken in the second year of the epidemiology PhD program curriculum, following the Epidemiology Foundations courses (Epidemiology Methods I and II. It is typically taken after Epidemiology Seminar I, but can be taken out of sequence. The seminar series is designed to introduce students to a range of advanced epidemiologic concepts and research methods, to help PhD students advance their dissertation ideas, and help students obtain skills needed for a PhD in epidemiology. The course is now 2 credits.

Prerequisites: Epidemiology Methods I and Methods II, or an equivalent, and at least one semester of biostatistics.

Course Objectives: students will be able to:

- Describe 10 or more conceptual and methodologic issues in epidemiology, explain the issues in writing and verbally, and provide examples of how the issues relate to their own area of interest.
- Give a one-hour "work in progress" presentation that addresses their PhD dissertation ideas and challenges to success.
- Lead a discussion about a methodologic issue of interest or current debate within epidemiology.
- Critique an epidemiologic article.

Text/Readings:

Required: none

Recommended:

Rothman KJ, Greenland S. *Modern Epidemiology (3rd Ed)*. Lipincott-Raven, Philadelphia, 2008.

Each week there will be one or more required readings that could include information from web-based documents, articles, or book chapters provided by the instructor, other students, or guest lecturers. When possible, the articles for the class will be posted on Canvas.

Guest Lecturers. Guest lecturers will engage students in discussions involving specific epidemiologic methods, skills, and research study design intended for all PhD students in epidemiology. Students are encouraged to interact with the guest lecturers.

Homework and Class Participation: Students are required to read the assigned readings prior to class. For homework each week, students will be assigned to read up to 3 documents, and will be required to answer specific homework questions that are assigned about the documents. Students are encouraged to use examples from their own research or research interests when possible. Homework responses should not be more than one page long. All articles will be discussed in class, and students will be asked to share their examples.

Work In Progress Presentation.

For at least once during the semester, students will be responsible for presenting a Work in Progress to the class. The work-in-progress (WIP) is a formal, 45 to 60-minute talk regarding the current status of dissertation project ideas. The talk may focus on 1-2 current issues that a student needs to resolve in order to move forward. Students may choose to focus on a specific project idea that is well thought out, or discuss two or more approaches that they are considering. Each talk should include approximately 15 minutes of background information, including a review of the 2-3 most relevant previous publications on the topic, and a slide that outlines "what is not known" in their area of interest. Next the talk should identify one or more specific research questions that might contribute towards a dissertation. For each question, present a brief study design approach, including the main outcome and predictor variables and how they could be measured. Include at least one slide titled "feasibility" that lists the pros and cons of the approach(es) in terms of feasibility. A grading rubric will be provided to students.

Students should schedule a meeting with one of the course instructors to review an outline of their proposed talk at least 2 weeks before their talk is scheduled. Students are strongly encouraged to include their research mentors in the planning of this talk, and they are welcome to invite members of their mentoring and advising team to this talk. Students should expect to receive constructive feedback on their presentations.

Methods presentation. Students will each be assigned one topic related to epidemiologic methods. For that topic, the student should identify at least one reference that is a general description of the method, and one reference that is an example of the method being applied in the literature. Students should prepare homework questions related to the topic, and will provide comment on the submitted homeworks from each student. Preparing for this presentation often takes several weeks of planning, and the instructors are available to assist with these presentations.

Journal Article review and critique. Students will receive a journal article to review mid-way through the semester. They will have one week to prepare a critique of the paper and turn in their critique.

Topics – Spring 2014

Date	Topics	Instructor	Student
January 6	Course goals and objectives	Cook	
January 13	Writing a training grant	Okafor/Bryant	
January 20	Causation	Cook	
January 27	P-values	Cook	
	Common misconceptions		
February 2	Sample size issues		Waugh
	Ecologic analyses	Cook	
February 10	Evaluation of Programs		Rojas
	Journal Critique 1	Cook	
February 17	Time Series Analyses		Brew
	Decision Analyses	Cook	Ball
February 24	Baysean Analysis		Khan
March 3	Spring Break		
March 10	Study design issues in	Winterstein	
	pharmacoepidemiology		
March 17	WIP 1		Ball
	Journal critique 2	Cook	
March 24	Path analyses, DAG, and/or Missing data	Vaddiparti	
March 31	WIP 2		Rojas
	Genetic epidemiology (brief)	Cook	- Nojas
April 7	WIP 3		Bell
	Implementation Science	Cook	
April 14	WIP 4		Waugh
	Journal critique - final	Cook	
April 21	WIP 5		Khan
	Course discussion		

Grading: The grading scale for this course consists of the standard scale below:

```
93% - 100% = A (4.00)

90% - 92% = A- (3.67)

87% - 89% = B+ (3.33)

83% - 86% = B (3.00)

80% - 82% = B- (2.67)

77% - 79% = C+ (2.33)

73% - 76% = C (2.00)

70% - 72% = C- (1.67)

67% - 69% = D+ (1.33)

63% - 66% = D (1.00)

60% - 62% = D- (0.67)

Below 60% = E (0.00)
```

Grading Methods:

Course participation and attendance	= 25%
Homework assignments	= 40%
Work in Progress presentation	= 20%
Methods discussion	= 10%
Journal Article Critique	= 5%

To receive an "A", students should demonstrate work above the "average" expected from a PhD student in epidemiology, come to class prepared and ready to participate, and spend significant planning and effort on their two class presentations. A grading rubric will be used to evaluate presentations, and students will receive written feedback regarding strengths and limitations of the presentations. Note there will be peer evaluations for each of these, except for the homework assignments.

Statement of University's Honesty Policy University of Florida Academic Honesty Statements

Students and faculty will adhere to the following policies for academic honesty and honor. "I understand that the University of Florida expects its students to be honest in all their academic work. I agree and adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

"All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate."

"We, the members of the University of Florida, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

For more information regarding UF's policy on Academic Honesty, please visit http://gradcatalog.ufl.edu/content.php?catoid=2&navoid=762#Academic_Honesty

For details on how suspected honor code violations will be handled, please refer to http://regulations.ufl.edu/wp-content/uploads/2012/09/4042.pdf

Class Attendance: Class attendance is mandatory for students. Excused absences (e.g. scientific travel, illness) should be communicated to the instructor prior to the missed class day when possible. Regardless of attendance, students are responsible for completing the assigned readings and class assignments.

Attendance and Make-up Work –lssues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis.

Statement Related to Accommodations for Students with Disabilities
If you require classroom accommodation because of a disability, you must first
register with the Dean of Students Office (http://www.dso.ufl.edu/). The Dean of
Students Office will provide documentation to you, which you then give to the
instructor when requesting accommodation. The College is committed to providing
reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the UF Counseling & Wellness Center, 352-392-1575. Visit their web site for more information: http://www.counseling.ufl.edu/.

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services, including primary care, women's health care, immunizations, mental health care, and pharmacy services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: www.health.ufl.edu/shcc.

Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789.

Please do not wait until you reach a crisis to come in and talk with me or other Department faculty. We have helped many students through stressful situations impacting their academic performance. You are not alone, so please do not be afraid to ask for assistance.

Final Note. Course syllabi will be posted on a student accessible website that will be submitted to the departmental office to document compliance with this policy.