College of Public Health & Health Professions
Course Syllabus

Public Health Concepts in Infectious Diseases

PHC 6517 section 1816
M 10:40-11:30, W 9:35-11:30
Room G210

Fall 2012

Instructor Information

Robert L. Cook, MD, MPH
HPNP Building Room 3114
Office phone: (352) 273-5869
Contact email: cookrl@ufl.edu
Office hours: Monday 11:30 – 12 and by appointment

TA Information

Claudia Lissaker, MPH
Contact email: claudiak@phhp.ufl.edu
Office hours: By appointment

Course Overview or Purpose
The purpose of this course is to provide an in-depth understanding of the topics and research methods used in modern infectious disease epidemiology, with a focus on topics of major public health relevance. The course is intended for graduate students who have taken an introductory course in epidemiology and are interested in more advanced study related to infectious diseases and public health. Although the focus is on epidemiologic methods used to study infectious disease topics, the course is designed to appeal to students in a variety of disciplines, including epidemiology, health behavior, global and environmental health, and medical geography.

Course Objectives and/or Goals

1) Identify epidemiologic research methods used to address a diverse range of research questions related to infectious diseases.

2) Interpret strengths and weaknesses of specific research design strategies as they apply to infectious disease epidemiology research.

3) Identify a specific research question related to infectious disease epidemiology, explain why it is important, and design a research study that could answer the research question.

4) Identify and describe current public health issues related to several important infectious disease conditions worldwide.
5) Communicate public health infectious disease issues orally and in writing.

6) Demonstrate and apply infectious disease research concepts in public health.

**Course Materials**


1-4 journal articles each week. These will be available online on the course web site. The course is in the Sakai e-learning system, which can be accessed at URL: lss.at.ufl.edu and requires your Gatorlink ID.

**Course Requirements/Evaluation/Grading**

We will learn about methods used to evaluate research questions related to infectious disease epidemiology. We will also include a more in-depth review of several key infectious disease conditions that are relevant in the early 21st century. These include malaria, HIV infection, vector-borne infections, influenza, sexually transmitted diseases, emerging infectious diseases, health-care associated infections, and other conditions chosen by the students.

Each week, there is a 1-hour class on Monday and a 2-hour class on Wednesday. In general, one hour per week will be devoted to review of a specific infectious disease concept or condition, using the primary textbook and additional resources as needed. The second hour will be a review of 2-3 journal articles, related to that topic, and that are representative of some key concepts. The third hour will vary between article review and traditional lecture. Guest lecturers will present information about their own research.

For article review, each student will be assigned a topic at the beginning of the semester. The student will do a literature search for articles related to the topic and choose 1-2 articles for review with input from the instructor. The student will lead the class discussion that will include:

1. What is the specific research question, and why is it significant?
2. What was known and unknown before the study started?
3. What is the study design, and why was that study design used?
4. Who was the population and how were they identified?
5. What was the major outcome and how was it measured?

As homework, each student will be asked to write a paragraph about each of the assigned research articles. The specific assignment for these paragraphs may change slightly during the semester. At the beginning of the semester, for each paper, students will be asked to identify the specific research question, identify the study design, to comment on whether they personally liked the paper or the research method (and why), and to explain the main finding of the study in one sentence. These homework assignments must be turned in either on the course web site or in class prior to the start of class. Students may take a free “pass” (a 100 score) for up to 3 papers during the semester if they cannot read the paper before class.

At least 2 times during the semester, students will be presented with approximately 15 questions about a current infectious disease topic. Each student will choose one question for each topic for a 5-minute presentation in which they:
1. Identify at least 1 source of original data or declare that there are no data
2. Create a 1-page (max) handout to bring for class that outlines the topic, present some data (if available), and explain a rationale for their response.
3. List at least 2 references used to address the question.

In addition, each student will identify an infectious disease research topic of their own choosing, and prepare a 20-minute oral presentation and a 10-15 page (double spaced) concept paper outlining the rationale and the study design for a research project that would answer a specific research question. Students will identify up to 3 specific learning objectives for the oral presentations.

There will two examinations during the class, that will include a combination of question types. The first exam will cover material from the first half of the semester, and the second exam will cover information from the second half, including content from the student presentations.

We will have a book discussion late in the semester. Participating in the book discussion will provide 3 bonus points to one of the exams.

Grades:
- Homework 10%
- Exam 1 20%
- Exam 2 20%
- Written Paper 20%
- Oral Presentation 20%
- In-class participation 10%

Class participation grades are generally provides as excellent (95), good (90) or could have been better (85). Missing more than 2 classes for any reason will result in an additional 5 points off the participation grade, unless specifically negotiated with the instructor or due to illness. I will provide feedback on participation rates at the time of Exam 1.

The grading scale for this course consists of the standard scale, including minus grades, below. The conversion factors for grade point values that are assigned to each grade are also included (in parentheses):

- 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)
## Course Outline (subject to modification during weeks 2 and 3)

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Guest Lecturer</th>
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<tbody>
<tr>
<td>1: 8/22</td>
<td>General principles, course overview, review assignments</td>
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<tr>
<td>2: 8/27, 8/29</td>
<td>Influenza and vaccination</td>
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<td>3: 9/5</td>
<td>HIV</td>
<td>Gary Wang, MD, PhD</td>
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<td>4: 9/10, 9/12</td>
<td>Human Microbiome, and arbovirus infections</td>
<td>Volker Mai, PhD (9/10)</td>
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<td>5: 9/17, 9/19</td>
<td>Geography in infectious diseases, and tick-borne diseases</td>
<td>Jocelyn Mullins, DVM, MPH (9/19)</td>
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<td>6: 9/24, 9/26</td>
<td>MRSA and Hospital Infections</td>
<td>Marco Salemi, PhD(9/24)/Cindy Prins, PhD, MPH and Lennox Archibald, MD (9/26)</td>
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<td>7: 10/1, 10/3</td>
<td>Malaria</td>
<td>Bernard Okech, PhD</td>
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<td>8: 10/8, 10/10</td>
<td>Ethical Issues in Infectious Disease Research and Exam 1</td>
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<td>9: 10/15, 10/17</td>
<td>Infectious Disease Modeling</td>
<td>Ira Longini, PhD (10/15)</td>
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<td>10: 10/22, 10/24</td>
<td>Environmental Issues in Infectious Disease</td>
<td>Claudia Lissaker, MPH (10/24)</td>
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<td>11: 10/29, 10/31</td>
<td>Congenital infections and diarrheal diseases</td>
<td>Stephanie Staras, PhD (10/29)/Glenn Morris, MD, MPH (10/31)</td>
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<td>12: 11/5, 11/7</td>
<td>Social networks in Infectious diseases, STDs</td>
<td>Maria Khan, PhD, MPH</td>
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<td>13: 11/14</td>
<td>Emerging Infectious Diseases</td>
<td>Juliet Pulliam, PhD</td>
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<td>14: 11/19</td>
<td>Tuberculosis</td>
<td>Mike Lauzardo, MD, MS</td>
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<td>15: 11/26, 11/28</td>
<td>Class Presentations</td>
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<tr>
<td>16: 12/3, 12/5</td>
<td>Class Presentations</td>
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Other topics we may consider adding above include: Behavioral issues in infectious disease epidemiology, HPV infections, Hepatitis, Meningococcal infections, Helminth infections

Monday September 3 is Labor Day Holiday, no class  
Monday November 12 is Veteran’s Day, no class  
Wednesday November 21 is Thanksgiving holiday, no class  
Monday October 15 is tentative date for Exam 1  
Paper due date is November 14 by 5 pm on Sakai and paper copy to instructor  
Final examination is tentatively scheduled for Monday, December 10

**Statement of University’s Honesty Policy (cheating and use of copyrighted materials)**
**Academic Integrity** – Students are expected to act in accordance with the University of Florida policy on academic integrity (see Graduate Student Handbook for details). Cheating or plagiarism in any form is unacceptable and inexcusable behavior. This will be discussed during the first day of class.

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

**Policy Related to Class Attendance:**

10% of grade is related to class participation. 1-2 excused absences are allowed; additional absences will count against this grade.

**Policy Related to Make-up Exams or Other Work**

**Example:**

*Attendance and Make-up Work* – Personal issues 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**

*Students with Disabilities* - Students requesting classroom accommodation must first register with the Dean of Students Office, which will provide documentation to the student. The student should then provide this documentation to me.

**Phone Numbers and Contact Sites for University Counseling Services and Mental Health Services**

University Counseling Services  
[http://www.counsel.ufl.edu/services.asp](http://www.counsel.ufl.edu/services.asp)  
P301 Peabody Hall – 392-1575

Student Mental Health Services in the Student Health Care Center  
[http://www.health.ufl.edu/shcc](http://www.health.ufl.edu/shcc)  
Room 245, Infirmary Bldg.- 392-1171

**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.