PHC 6002 Section 8680: Infectious Disease Epidemiology  
Summer A, 2013  
Course: http://lss.at.ufl.edu

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Prerequisite: PHC 6001 Principles of Epidemiology

Course Overview
This is an intermediate level course, which will introduce the student to the unique aspects of infectious disease and epidemiological methods used in their study, prevention and control. The student will gain knowledge through lectures, case studies, simulated outbreaks, readings, exercises and an individual project.

Course Objectives
1. Understand the historical impact of infectious disease on society  
2. Understand the modes of transmission and pathogenesis of infectious disease and the host, organism and environment relationship as they apply to infectious disease epidemiology.  
3. Understand the usual approaches to an outbreak investigation.  
5. Understand the application of epidemiological methods to the study of infectious disease and their importance in prevention of morbidity.  
6. Become familiar with selected infectious diseases, with knowledge of the nature, agent and route of contagion of each disease.

1. Lectures – provide a general overview of each topic.

2. Required Text and readings

Supplemental readings will also be assigned for lectures and are posted by topic under the course schedule.

3. Additional resources (You should sign up for the following by (Thursday May 16th))
1. Infectious Disease list serve. Pro-med: www.promedmail.com (HINT: sign up only for the “Pro Med Digest A consolation of all postings” only)  
3. (Optional) Emerging Infectious Diseases. To subscribe to the Emerging Infectious Diseases e-mail list http://wwwnc.cdc.gov/eid/subscribe.htm  
4. **Examinations:** Students are expected to take the examinations on the scheduled date and time. There is a midterm (25%) and a final (25%).

5. **Class Briefing:** Five percent of your class grade will come from briefing (three minutes) the class of a timely topic in the dreaded world of infectious diseases. Items may be obtained from any of the “additional resources” listed in the syllabus or any other reputable source you choose. Include a brief description of the disease and mode of transmission (obtain your information from your *Control of Communicable Disease Manual*).

6. **Class exercises:** Due 5/23 and 6/6 (due by 5:15pm when class begins). You can retake these outbreak exercises as many times as you like to improve your score. Please only submit the score you want recorded; multiple submissions will not be accepted. These exercises are worth 10% of your course grade.

7. **Final Project:** Please read the detailed description for the project posted on the course website in the “Assignments” folder on the home page. This is an individual assignment, but each person will need to pick a partner to review your project. The project presentation dates are 6/13, 6/17, or 6/18 (please see the class website to see which date you have been assigned). The paper portion of the project is due prior to the presentation date.

8. **Class Participation:** There are lots opportunities for discussions in this course. This will comprise 10% of your course grade.

**Grading Method:**

- May 30 – Midterm exam
- June 13, 17 or 18 – Final Project
- June 20 – Final exam
- Class participation
- Class exercises
- Classroom briefing

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>92-100</td>
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<tr>
<td>B</td>
<td>87-91</td>
</tr>
<tr>
<td>C</td>
<td>82-86</td>
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<tr>
<td>D</td>
<td>72-77</td>
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<tr>
<td>E</td>
<td>Below 72</td>
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**Grading:** The grading scale for this course consists of the standard scale below:

Grading:

- 92-100 = 4.0 (A)
- 90-91 = 3.67 (A-)
- 87-89 = 3.33 (B+)
- 82-86 = 3.00 (B)
- 80-81 = 2.67 (B-)
- 77-79 = 2.33 (C+)
- 73-76 = 2.00 (C)
- 70-72 = 1.67 (C-)
- 67-69 = 1.33 (D+)
- 63-66 = 1.00 (D)
- 60-62 = 0.67 (D-)
- Below 60 = 0 (E)

**Class website:**

Lectures, lecture notes, readings, instructor contacts, and course schedule are available on the website.

This course will utilize the UF eLearning system, which is accessible at [http://lss.at.ufl.edu](http://lss.at.ufl.edu) or through [my.ufl.edu](http://my.ufl.edu). You must have a valid Gatorlink ID and password. Components of the site require Java and pop-up windows (you will have to allow these when using Vista). For assistance, call the UF Help Desk at 352-392-HELP or email them at [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu)
Requirements: Students are responsible for all course material, including reading all required materials prior to each lecture.

Readings and Discussions: Students should read the assigned readings prior to viewing course lectures and be prepared to discuss the material in class.

Attendance Policy: Per the University of Florida, students are responsible for satisfying all academic objectives as defined by the instructor. Acceptable reasons for absence include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays and participation in official University activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Remember that, when possible (i.e. extracurricular activities, official University activities, and religious holidays), prior notification of absence is required if the student plans to be given an extension on assignments.

Make-up Exams and Work: If you are unable to meet a deadline in this course for a reason approved above and have given prior notification to the instructor when possible, you will be given adequate time to make up any coursework missed. All other missed or late work will receive a grade of zero. Make-up exams will be provided only in cases of excused absences or conflict during final exams per University policy and MUST be discussed with the instructor in advance. Make-up exams will differ from the regularly scheduled exam.

University Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the University, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." Plagiarism and cheating are serious offenses and will be dealt with as such; any student found cheating on coursework or exams will receive a failing grade on the assignment and potentially in the course, and be routed through the appropriate judicial process.

Accommodations for Students with Disabilities: Support services for students with disabilities are coordinated by the Disability Resource Center in the Dean of Students Office. All support services provided for University of Florida students are individualized to meet the needs of students with disabilities. To obtain individual support services, each student must meet with one of the support coordinators in the Disability Resources Program and collaboratively develop appropriate support strategies. Appropriate documentation regarding the student's disability is necessary to obtain any reasonable accommodation or support service.

University Counseling and Mental Health Services:

University Counseling Services: P301 Peabody Hall, 392-1575
http://www.counsel.ufl.edu/services.asp

Student Mental Health Services: Student Health Care Center Room 245, 392-1171
http://www.health.ufl.edu/shcc
Infectious Disease Epidemiology Course Schedule

Lecture Topic and Reading Materials

May 13

Lectures
   Introduction
   History of Infectious Diseases
   Outbreak Investigations

Readings:
   • CDC: Steps in an Outbreak Investigation
   • [http://www.cdc.gov/excite/classroom/outbreak/steps.htm](http://www.cdc.gov/excite/classroom/outbreak/steps.htm)
   • Specimen Collection- from UNC (located in Resources).
   • Control of Communicable Disease Manual (CCDM):
     ▪ Smallpox
     ▪ Plague
     ▪ Syphilis

May 14

Lectures
   Immunology
   Vaccine Preventable Diseases

Readings:
   • Vaccine Preventable Deaths and the Global Immunization Vision and Strategy, 2006—2015
     MMWR Weekly May 12, 2006 / 55(18);511-515
     [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5518a4.htm?_cid=mm5518a4_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5518a4.htm?_cid=mm5518a4_e)
   • Laboratory Diagnosis and Immunology: An Overview (located in Resources)
May 16

Exercise

Bring a calculator and CCDM to class.

May 20

Lectures

Zoonotic Diseases

Vector Borne and Parasitic Diseases

Reading:

- CCDM
  - Dracunculiasis
  - Lyme Disease
  - Malaria
  - Rabies

May 21

Lectures

Tuberculosis with Michael Lazuardo, MD, MPH

Readings:

- MMWR: Trends in Tuberculosis --- United States, 2010 http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6011a2.htm?s_cid=mm6011a2_w
- CCDM
  - Tuberculosis

May 23

Exercise #1 due
Lecture
Hospital Infection Prevention and Control with Chaz Rhone, MPH

Readings
None

May 27
Memorial Day- No Class

May 28
Lecture
Diarrheal Diseases

Readings:
- Explore the CDC website on Travelers' Health (this is a great website to use for overseas travel information). Pick a place you would like to visit and explore the health information listed. [http://wwwn.cdc.gov/travel/default.aspx](http://wwwn.cdc.gov/travel/default.aspx)
- Ranking the Risks: The 10 Pathogen Food Combinations with the Greatest Burden on Public Health. (only read the Executive Summary) [http://www.rwjf.org/files/research/72267report.pdf](http://www.rwjf.org/files/research/72267report.pdf)

- CCDM:
  o *Vibrio cholera*
  o Salmonella
  o *E. Coli*
  o *Rotavirus*
  o Giardia

May 30
Midterm

June 3
In Class Exercise

Lecture
Influenza

Readings:
- CCDM:
  o Influenza
June 4  
**Lectures**  
Molecular Epidemiology with Scott Pritchard, MPH  

**Readings (may change)**  
- Molecular Subtyping and the Transformation of Public Health (located in Resources)  
- Discernment between deliberate and natural infectious disease outbreaks (located in Resources)  

June 6  
**Exercise #2 due**  

**Lectures**  
STI  
HIV/AIDS  

**Reading**  
- NIAID-Supported Scientists Discover Origin of HIV-1  
- *Pediatric Nursing*: The New Human Papillomavirus (HPV) for Pediatric and Adolescent Health From Pediatric Nursing, Posted 12/16/2008 Tami L. Thomas, PhD, ARNP, RNC (see class reading folder)  
- Mothering Magazine HPV article (located in Resources)  

June 10  
**Lectures**  
Surveillance with Taj Azarian, MPH  

**Readings**  
- Principles of Epidemiology in Public Health Practice. Read Lesson 5: Surveillance only. (located in Resources)  

June 11  
**Lectures**  
Emerging and Re-emerging Infectious Diseases with Glenn Morris, MD, MPH, TM  

**Reading**  
- Population biology of emerging and re-emerging pathogens  
June 13
   Student Presentations
June 17
   Student Presentations
June 18
   Student Presentations
June 20
   Final Exam