

## Epi 755: Infectious Disease Epidemiology Spring 2014

Instructors: Audrey Pettifor, Steve Meshnick

Class: Tue and Thur 2-3:15pm

Location: McGavran Greenberg 1303

### Objectives:

1. Understand the general principles of infectious disease epidemiology
2. Understand surveillance, prevention and control of infectious diseases
3. Apply principles to specific infectious diseases

### EPID 755 SPRING 2014

Wk	Dates		Lecturer
	9-Jan	History of Infectious Disease Reading: Nelson Ch 1	Meshnick
1	14-Jan	Epi of Infectious Diseases- General Principles, Reading: Nelson Ch 2	Pettifor
	16-Jan	Lab	
2	21-Jan	Surveillance and Global Burden of Disease Readings: 1) Murray N Engl J Med 2013;369:448-57; 2) Murray Lancet 2012; 380: 2197 3) Ortblad AIDS 2013, 27:2003– 2017; 4) Lozano <u>Lancet</u> . 2013 Mar 23;381(9871):991-2 and 4) UNAIDS Ref Group on HIV Estimates <u>Lancet</u> . 2013 Mar 23;381(9871):991.	Pettifor
	23-Jan	Lab	
3	28-Jan	Outbreak Investigation – Readings: Nelson Ch 5/14	Emily Sickbert-Benett
	30-Jan	Lab	
4	4-Feb	Eradication, Small Pox Readings: Nelson Chapter 11	Meshnick
	6-Feb	Lab: Can Malaria or Polio be eradicated?	
5	11-Feb	Phylogenetics/Molecular Epi Reading: Nelson Ch 9	Jon Juliano
	13-Feb	Lab- phylogenetics	
6	18-Feb	Vaccines Reading: Nelson Ch 10	Meshnick
	20-Feb	Lab/Quiz 1	
7	25-Feb	Case Definitions and Diagnostics Readings: TBD	Miller
	28-Feb	Lab	
8	4-Mar	Modeling Readings: TBD	Powers

	6-Mar	Lab	
	11-Mar	SPRING	
	13-Mar	BREAK	
9	18-Mar	Behavioral and Structural Aspects of ID Readings: TBD	Pettifor
	20-Mar	Lab/Quiz 2	
10	25-Mar	Geospatial methods Readings: TBD	Miller
	27-Mar	Lab	
11	1-Apr	Student Presentations	
	3-Apr	Student Presentations	
12	8-Apr	Student Presentations	
	10-Apr	Student Presentations	
13	15-Apr	Student Presentations	
	17-Apr	Student Presentations	
14	22-Apr	Evolutionary Biology and Population Genetics/Quiz 3	Meshnick
	24-Apr	Final Exam	

### Course structure

This class takes places on Tuesday and Thursdays from 2-3:15 pm.

Tuesday is a lecture based class on various methods/topics in ID Epi.

Thursdays is a practice based lab. Attendance for lectures and labs is required. If you are must miss class you must first get permission from Dr. Pettifor and Dr. Meshnick.

Students are required to purchase a text book for this class. **Infectious Disease Epidemiology: Theory and Practice** Author: Kenneth Nelson and Carolyn Williams. Readings each week are required from the Nelson book. In addition, articles will be assigned relevant to the Thursday Lab. There will be 3 short quizzes on the readings throughout the semester. At the end of the semester, each student will be responsible for presenting to the class on a chosen ID. Key principles from the class should be demonstrated in the presentation. More details will be provided later in the semester. The final exam will be on the last day of class and in will be in an in class, short answer final on the topics covered in the lectures, readings and labs.

### Grading

Course participation/lab (20%), short quizzes (20%), final presentation (40%), final exam (20%)