

BMS 557 - Emerging Infectious Diseases Spring 2011

Time: 12:30-1:30 PM, Wednesdays

Location: DAI Classroom (Rm 1041) - David Axelrod Institute, 120 New Scotland Ave

Course coordinator: Linda Styer, Ph.D. (Office: DAI 5001, Work Phone: 474-2163, e-mail: lms24@health.state.ny.us)

Course Goals:

At the end of the course, students will be able to:

- 1) Define 'emerging infectious disease' and describe factors that have allowed disease emergence
- 2) Be familiar with basic principles of infectious disease epidemiology, including the importance of surveillance and outbreak investigation
- 3) Understand the basic biology, epidemiology, diagnostics, treatment/control for specific emerging infectious diseases, including, if applicable, recent outbreaks within New York State.
- 4) Appreciate the important role of public health practitioners in monitoring, diagnosing and controlling emerging infectious diseases

Course Schedule:

Date	Lecture #	Topic	Instructor	Email
Jan 19	1	Introduction to EIDs	Styer	lms24@health.state.ny.us
Topic 1: Emergence due to changing human behaviors and travel				
Jan 26	2	HIV – the 'first' of many EIDs	Styer	lms24@health.state.ny.us
Feb 2	3	Emerging fungal infections	Ramani	rxx15@health.state.ny.us
Feb 9	4	Emerging parasitic diseases	Keithly	keithly@wadsworth.org
Topic 2: Emergence due to changes in medicine or industry				
Feb 16	5	Hepatitis C virus	Parker	mmp09@health.state.ny.us
<i>Feb 23 Break- No Classes</i>				
Mar 2	6	Food-borne pathogens	Musser	musser@wadsworth.org
Mar 9	7	Emergence of antimicrobial resistance	Escuyer	vee01@health.state.ny.us
EXAM 1 (lectures 1-7) will be sent to you on Thurs, March 10; it is due by 12:30pm on Wed, March 16.				
Topic 3: Emergence due to increased contact between humans and animals				
Mar 16	8	Zoonoses associated with rodents	Eidson	mxe04@health.state.ny.us
Mar 23	9	Emerging tick-borne infections	Backenson	bpb01@health.state.ny.us
Topic 4: Emergence due to novel or changing pathogens				
Mar 30	10	Rabies and white-nose syndrome in bats	Rudd	rjr06@health.state.ny.us
Apr 6	11	Influenza: a continually emerging pathogen	St. George	kxs16@health.state.ny.us
Apr 13	12	SARS	Masters	masters@wadsworth.org
ProMED Outbreak Summary Due by 12:30pm on Apr 13				
<i>Apr 20 Break – No Classes</i>				
Apr 27	13	Emerging Mosquito-borne Viruses	Styer	lms24@health.state.ny.us
EXAM 2 (lectures 8-13) will be sent to you on Thurs, Apr 28; it is due by 12:30pm on Wed, May 4.				

Reading Materials:

Since there is no text book for the course, articles, handouts and lecture contents will be the required reading materials. These materials will be available on the Eres page for the course.

Grading Policies

Exams

There will be 2 take home exams. Each lecture will contribute one 10 point essay question to the exams. Exam 1 (lectures 1-7) will be e-mailed to students on **March 10** and will be due **by 12:30 pm on March 16**. Exam 2 (lectures 8-13) will be e-mailed to students on **April 28** and will be due **by 12:30pm on May 4**. *Five points will be deducted for each day that an exam is late.*

Attendance and Participation

Students earn 1 point for attendance at each lecture and 1 point for participating (e.g. asking a question).

Written summary of disease outbreak reported on ProMED-mail

The objectives of this assignment are (1) for students to become familiar with ProMED-mail, an internet based reporting system for infectious disease outbreaks and (2) to give students a chance to further explore an emerging infectious disease that is of interest to them.

Step 1: Sign up to receive ProMED-mail reports by email by signing up at www.promedmail.org

Step 2: Select an infectious disease outbreak reported on ProMED-mail between 1/1/11 and 4/13/10. It can be an infectious disease outbreak in humans, animals or plants.

Step 3: Search for previous posts on ProMED-mail regarding this infectious disease. For wide-spread diseases, it may be helpful to limit the search to a particular country or region. Gather information about this outbreak and background info on the disease. You can use trusted internet sources (CDC, WHO, Emerging Health Threats Forum, Food Safety Network, OIE, etc.) or written publications. Be sure to cite these sources appropriately.

Step 4: Write a 2-3 page (12 pt font, double spaced) summary of the outbreak that includes the following items. Due by 12:30pm on Wednesday, April 13.

- Background information on disease
 - Type/classification of disease causing agent, disease symptoms, mode of transmission, options for controlling or treating disease, etc.
- Description of outbreak
 - Who, what, where, when, how, measures taken to control outbreak, previous outbreaks of this disease reported on ProMED
- Potential contributors to outbreak
 - What factors are mentioned in the ProMED posts as potentially causing this epidemic?
 - Can you think of other contributing factors to this outbreak that are not mentioned in the posts?

Points

Take-home exams (10 pts/lecture)	130 pts (65%)
Attendance & Participation (2 pt/lecture)	26 pts (13%)
Written summary of disease outbreak (34 pts content, 10 pts grammar/style)	<u>44 pts (22%)</u>
	200 pts

Grading Scale for Course:

Grade	A	A-	B+	B	B-	C+	C	C-	D
Hi %	100%	92.4%	89.4%	87.4%	82.4%	79.4%	77.4%	72.4%	69.4%
Hi Pts	200	184.9	178.9	174.9	164.9	158.9	154.9	144.9	138.9
Lo %	92.5%	89.5%	87.5%	82.5%	79.5%	77.5%	72.5%	69.5%	59.5%
Lo Pts	185.0	179.0	175.0	165.0	159.0	155.0	145.0	139.0	119.0