



Epidemiology of Infectious Diseases Department of Environmental Health

Course Information

Title: Epidemiology of Infectious Diseases

Course #: BE7084, PH7083

Credit Hours: 3

Term: Fall 2019

Prerequisites: BE7076 Introduction to Epidemiology or PH7030 Epidemiology for Public Health

Instructor Information

Name: Dr. Florence Fulk

Title: Adjunct Associate Professor DEH

Office Information: None

Email: fulkfa@mail.uc.edu

Office Hours: Thursdays 3-4:00 PM EST G17 and by appointment

Communication Policy: Students are encouraged to contact me anytime via email. A response will be given within 24-48 hours except on weekends. If you need to contact me with an urgent concern you may text me (859-462-2339).

Course Materials

Optional Textbook

- *Infectious Disease Epidemiology Oxford Specialist Handbook*. (2016) First Edition. Ibrahim Abubakar, Stagg, H., Cohen, T., Rodrigues, L. ISBN 978-0-19-871983-0

There are many resources including textbooks and references on epidemiology of infectious diseases and infectious diseases in general. I selected this text based on topics included, level of information and its potential to be used as a quick reference beyond this class. There will be other readings assigned for specific lectures. These will be posted on the course website prior to class. Handouts for individual lectures may or may not be available online prior to class.

Course Description

This course will introduce the student to terminology and methods related to the epidemiology of infectious diseases within the context of public health. There will be a focus on surveillance, outbreak investigation, intervention and prevention. Infectious diseases of major public health importance will be reviewed. The goal is to provide the student with knowledge of a general approach and framework through which all infectious disease problems can be addressed.

Course Grading

Assessment of student performance will be based on:

Class Participation	10 points
Assignments (2)	20 points
Infectious Disease Presentation	35 points
Exams (2)	35 points
Total	100 points

Course Grading Scale

A 100-95	B 89-85	C 79-75	F 64-below
A- 94-90	B- 84-80	C- 74-70	

Student Learning Outcomes

Upon successful completion of this course, the learner will be able to:	How is this outcome assessed?
1. Characterize the major infectious diseases, their measurement, natural history, risk factors and epidemiology.	Exams, Student Presentation, In-class Activities and Discussions
2. Explain and utilize infectious disease epidemiology terminology and concepts including incubation period, infectious period, mode of transmission, host and reservoir.	Exams, Student Presentation, In-class Activities and Discussions
3. Distinguish between mechanisms of disease transmission as they relate to the host/agent/environment model, causation, prevention, and control.	Exams, Student Presentation, In-class Activities and Discussions
4. Explain and assess the components, purposes, and strengths and weaknesses of different surveillance systems.	Exams, Student Presentation, In-class Activities and Discussions
5. Evaluate, propose and design intervention, prevention, and control strategies for diverse infectious disease problems in various settings.	Exams, Student Presentation, In-class Activities and Discussions

Instructional Methods (Including Description about Bb)

The following course has the Blackboard (Bb) Learning Management System to provide student-centered online learning that will enhance the teaching and learning process. If you are not familiar with these tools, please visit [IT@UC's Knowledge Base for Blackboard](#).

Course Communication

University policy requires that the email set up in Blackboard is the primary means of communication. It is advisable that you use your UC email for this purpose and that you check it often. If you choose to change your email in Blackboard to a non-UC email it is your responsibility to ensure you check it frequently.

Course and Grading Policies

- 1. Course Contract:** Upon officially registering for the course, the student assumes responsibility for understanding and complying with the entire contents of the course syllabus. It is the student's responsibility to raise questions or concerns directly with the instructor. The course instructor reserves the right to change, modify, add or delete any class assignment, reading, or activity at any time. Such changes will be made at the earliest possible time
- 2. Academic Code of Conduct:** Academic misconduct or dishonesty is defined in the University of Cincinnati Student Code of Conduct. Academic misconduct includes, but is not limited to: acts of cheating, plagiarism, falsification, and misappropriation of credit. The Student Code of Conduct defines behavior expected of all University of Cincinnati students. It is each student's responsibility to know and comply with the University's Student Code of Conduct. Disciplinary procedures are explained in a step-by-step manner, and the procedures for appeal of decisions are stated. (see: [UC's Student Code of Conduct](#))

Plagiarism is defined as:

- Submitting another's published or unpublished work in whole, in part, or in paraphrase, as one's own without fully and properly crediting the author with footnotes, quotation marks, citations, or bibliographic reference.
- Submitting as one's own original work, material obtained from an individual, agency, or the internet without reference to the person, agency or webpage as the source of the material.
- Submitting as one's own original work material that has been produced through unacknowledged collaboration with others without release in writing from collaborators.
- Submitting one's own previously written or oral work without modification and instructor permission.

Plagiarism will not be tolerated and according to the Student Code of Conduct

(https://www.uc.edu/conduct/Code_of_Conduct.html), may result in the following consequences:

- Formal report of academic misconduct.
- Reduced or failing grade on the exercise.
- Reduced or failing grade for the course.
- Recommendation to the College Hearing Panel/Dean/Provost for probation, suspension, or dismissal.

3. **Disability:** Students with disabilities who need academic accommodations or other specialized services while attending the University of Cincinnati will receive reasonable accommodations to meet their individual needs as well as advocacy assistance on disability-related issues. Students requiring special accommodation must register with the Disability Services Office. [UC's Disability Services Office](#).
4. **Counseling Services, Clifton Campus:** Students have access to counseling and mental health care through the University Health Services (UHS), which can provide both psychotherapy and psychiatric services. In addition, Counseling and Psychological Services (CAPS) can provide professional counseling upon request; students may receive five free counseling sessions through CAPS without insurance. Students are encouraged to seek assistance for anxiety, depression, trauma/assault, adjustment to college life, interpersonal/relational difficulty, sexuality, family conflict, grief and loss, disordered eating and body image, alcohol and substance abuse, anger management, identity development and issues related to diversity, concerns associated with sexual orientation and spirituality concerns, as well as any other issue of concerns. After hours, students may call UHS at 513-556-2564 or CAPS Cares at 513-556-0648. For urgent physician consultation after-hours students may call 513-584-7777.
5. **Title IX:** Title IX is a federal civil rights law that prohibits discrimination on the basis of your actual or perceived sex, gender, gender identity, gender expression, or sexual orientation. Title IX also covers sexual violence, dating or domestic violence, and stalking. If you disclose a Title IX issue to me, I am required to forward that information to the Title IX Office. They will follow up with you about how the University can take steps to address the impact on you and the community and make you aware of your rights and resources. Their priority is to make sure you are safe and successful here. You are not required to talk with the Title IX Office. If you would like to make a report of sex or gender-based discrimination, harassment or violence, or if you would like to know more about your rights and resources on campus, you can consult [UC's webpage for Title IX](#) or contact the office at 556-3349.
6. **Missed and/or late examinations, quizzes, and graded exercises:** Missing and/or submission of late assignments without a valid excuse (to be determined by the instructor) will result in a 5% grade deduction per day.
7. **Weather Related Protocol:** When inclement weather threatens the safety of the University of Cincinnati community, the Senior Vice President for Administration and Finance may invoke University Rule [3361: 10-55-01](#) and declare an emergency closing. College of Medicine Students: Graduate Students – follow all University snow policies and procedures. All classes and exams are canceled when the university has closed. On days when the University delays opening, classes and exams will resume at the hour that the University reopens if this is at or before 3 pm. **If there is a closure during our regular class meeting time, we will NOT meet for class that day.**

Epidemiology of Infectious Disease Course Schedule

(Tentative, subject to change)

DATE	TOPIC	SPEAKER	Notes/HOMEWORK <i>(due for next class)</i>
8/29	Class overview and expectations Epidemiology of Infectious Diseases: The Basics Overview of Study Designs	Dr. Flo Fulk	Materials to support this lecture: Chapters 1 and 4 of Infectious Disease Epidemiology Groups will be assigned for class project. <u>For next week 9/5 please bring your laptop.</u> We will access infectious disease surveillance databases for an in-class exercise.
9/5	Sources of Data: Infectious Disease Surveillance Systems In-class Surveillance System Exercise	Dr. Flo Fulk	Materials to support this lecture: Chapter 2 of Infectious Disease Epidemiology. In-class surveillance database exercise. <u>Assignment for 9/12:</u> Select an infectious disease intervention or prevention public message. Send a pdf of the message to Dr. Fulk by noon 9/12. Be prepared to discuss 1) what you think is particularly effective about the message and 2) what you would change to improve the message.
9/12	Public Health Intervention: Prevent and Control the Spread of Infectious Diseases Discussion of student selected messages	Dr. Flo Fulk	Materials to support this lecture: Chapters 11 and 12 of Infectious Disease Epidemiology <u>Assignment due 09/18</u> For your intervention or prevention public health message prepare a written paper (one to two pages). Submit infectious disease for your class project. Sign up for discussion leads for journal articles/publications. Discussions will begin 09/19 and will continue throughout the course.
9/19	Vaccines Student lead discussions	Dr. Flo Fulk	Materials to support this lecture: Chapter 12 of Infectious Disease Epidemiology Submit your intervention or prevention public health message paper.
9/26	Infectious Disease Dynamics Influenza: Disease, Epidemics and Pandemics	Dr. David Hartley Dr. Rebecca Brady	Materials to support this lecture: Chapter 18 of Infectious Disease Epidemiology

10/3	Mid-term Exam Student lead discussions	Dr. Flo Fulk	Mid-term exam will be multiple choice and short answer. Example questions will be provided prior to exam. This will be a closed book exam. Consultations for infectious disease project.
10/10	University Reading Day – No Class		
10/17	Outbreak Investigation In-class outbreak investigation exercise	Dr. Flo Fulk	Materials to support this lecture: Chapter 3 of Infectious Disease Epidemiology Consultations for infectious disease project
10/24	Emerging and re-emerging infections Student lead discussions	Dr. Elizabeth Schlaudecker	Consultations for infectious disease project
10/31	Climate Change and Infectious Diseases Student lead discussions	Dr. Flo Fulk	Sign up of for infectious disease project presentation slot.
11/7	Diarrheal Diseases Student lead discussions	Dr. Robert Frenck	Materials to support this lecture: Chapter 19 of Infectious Disease Epidemiology
11/14	Healthcare Associated Infections Student lead discussions	Dr. Shantini Gamage	Materials to support this lecture: Chapter 21 of Infectious Disease Epidemiology
11/21	Infectious Disease Project Presentations	Students	Each group will have 30 minutes for presentation including time for Q&A.
11/28	Thanksgiving – No class		
12/5	Infectious Disease Project Presentations	Students	Each group will have 30 minutes for presentation including time for Q&A.
12/12	Final Exam		Final exam will be short answer and essay.