

Syllabus

College of Public Health & Health Professions
University of Florida

Introduction to Foodborne Diseases PHC 6520 (Online Course) Fall Semester, 2014, 3 credit hours

Instructors

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Course Description

This intermediate level course is intended for graduate students and health professionals. The purpose of the course is to introduce students to major foodborne pathogens, their epidemiology and associated disease burdens, approaches to outbreak investigation and control of foodborne illness. The course combines lectures, case studies, discussions, and a class project.

Course Objectives

Upon successful completion of the course, students should be able to:

1. Assess the public health disease burden of key foodborne diseases;
2. Characterize the major bacterial, viral, and parasitic foodborne pathogens, including, for each, clinical presentations, epidemiology, points of entry into the food chain, and approaches to prevention;
3. Explain application of HACCP programs in food safety;
4. Describe concepts underlying development of risk-based regulatory systems;
5. Understand the contribution of environmental/preharvest/postharvest/transport/retail/restaurant factors to overall food safety; and
6. Describe the legal basis for current food regulatory systems in the United States and the European Union.

Prerequisite PHC6001 (Principles of Epidemiology), or consent of the instructors

Course Materials

Textbook: Morris JG, Potter ME (eds, 2013). Foodborne Infections and Intoxications, 4th ed. Academic Press

Getting started in this course

In order to start accessing the materials in this course, students must take, and pass with a 100% score, a syllabus quiz. Please review this document thoroughly, log onto the course site

and open the “Syllabus Quiz” under the “Tests & Quizzes” tool. You may take this quiz as many times as necessary to achieve the 100% score. Feedback after your quiz submission will be provided to insure that you are reminded of the correct response. This is an ungraded exercise, but is critical to insure that all students understand the requirements of this course.

Assignments/Evaluation/Grading

Requirements	Due Date	% of Final Grade
Case study 1	9/7/2014	5%
Case study 2	9/14/2014	5%
Case study 3	10/05/2014	5%
Case study 4	10/12/2014	5%
Midterm	Open 10/18–21/2014	25%
Class project	Weeks 14-15 (11/24 & 12/5)	25%
Final exam	Open 12/14–18/2014	30%

Case Studies

Case studies are to provide students with the opportunity to work through examples of foodborne disease outbreak investigations to reinforce principles, concepts, and techniques covered in lectures. We have adopted four computer-based case studies developed by the Centers for Disease Control and Prevention (CDC). The case studies are self-instructional interactive exercises based on real-life outbreaks and public health problems. Each case study includes an introduction (of the outbreak) and 6-7 steps for conducting the outbreak investigation, and at each step, there are specific questions which require the students to answer. Each case study may take 2-4 hours to complete and students are required to submit a progress report (based on answers to questions at each step) and certificate of completion upon completion of the case study. Grading will be based on the progress report and completion certificate.

Prior to doing the case study, the students need to download specific program for each case study from the CDC website (<http://www.cdc.gov/epicasestudies/computerbased.html>) and install it. The four case studies should be conducted in the following order:

1. *Salmonella* in the Caribbean
2. *E. coli* O157:H7 infection in Michigan
3. Gastroenteritis at a University in Texas.
4. Botulism in Argentina

Class Project

Each student will be required to undertake an individual project relevant to control of foodborne disease. Projects may involve original research (e.g. a study involving data collection and analysis; *check with instructors if a research project is envisioned that will involve human subjects*), or may provide an in-depth review of a key element of foodborne disease control. Material is to be presented in a 12-minute video, which will be posted in an unlisted posting in YouTube (<http://youtube.com>). The video may be done using one or more formats, including standard PowerPoint presentations, direct verbal presentations, and/or inclusion of “on site” material highlighting key elements of disease control (ranging from on-farm sources of contamination through kitchen sanitation and food preparation). Creativity is encouraged, and

materials that could subsequently be used by students in public outreach activities would be welcome. Detailed information on this assignment and how to post in YouTube is posted in the Assignment tool within the course site.

A discussion board will be posted for each project, and students will be encouraged to comment on work done by other students in the class. The class project will count for 25% of the total grade - the project itself will count for 20% and an additional 5% will be based on the student's responses on the discussion boards to work done by the other students. The video presentations need to be posted by November 24, 2014 and comments on videos need to be posted by December 5, 2014. The grading rubric for the class project primarily encompasses creativity, originality, professional quality, effective use of multimedia, and fulfilling requirement of assignments.

Exams

Midterm and final exams will test students' grasp of key knowledge and principles covered in class and application of such knowledge to public health practices. The exams will include multiple-choice, true/false, fill-in-the-blank, and matching questions. The midterm will be worth 25% and the final will be worth 30% of your overall course grade. The final exam will be cumulative (i.e. based on materials covered in whole semester) but mostly on the 2nd half (i.e. from midterm and onward). For both midterm and final exam, a review question sheet, will be based on lectures and reading materials, will be posted on the course website one week before the exam.

These exams will be conducted via the online proctoring company, ProctorU. Students will set exam appointments via <http://proctoru.com> and must be prepared to show picture ID. Students must have some administrative permissions on your computer, must take exams with no one else in the room, and will be monitored via their webcam during exams. More information about ProctorU will be posted in the course site. Please see the "Taking Exams" document posted in the course site and the information below on exam proctoring.

The grade conversion is as follows:

Percentage or points	93%-100%	90%-92%	87%-89%	83%-86%	80%-82%	77%-79%	73%-76%	70%-72%	67%-69%	63%-66%	60%-62%	Below 60%
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Class Schedule

Weeks	Topic	Lecturer	Reading	Assignment
Week 1 August 25 - 31	Introduction	Glenn Morris Song Liang		Syllabus quiz
	Estimates of disease burden associated with foodborne disease	Michael Batz	Chapters 1&2	
Week 2 September 1 – 7	Bacterial pathogens: Salmonella (clinical manifestations, epidemiology, prevention)	Soohyoun Ahn	Chapter 5	Case study CB1167 Due Sept. 7
Week 3 September 8– 14	Bacterial pathogens: <i>E. coli</i>	Glenn Morris	Chapter 8	Case study CB3075 Due Sept. 14
Week 4 September 15 – 21	Bacterial pathogens: Campylobacter	Soohyoun Ahn	Chapter 9	
Week 5 September 22 – 28	Bacterial pathogens: Vibrios	Anita Wright	Chapter 7	
	Bacterial pathogens: Listeria, Yersinia	Glenn Morris	Chapters 10&11	
Week 6 September 29 - October 5	Norovirus, Astrovirus, Sapovirus	Stephanie Karst	Chapters 17,20,&22	Case study CB3076 Due Oct 5
Week 7 October 6 – 12	Toxin-mediated illness: botulism, staphylococcal food poisoning HABs	Glenn Morris	Chapters 27,28,&31	Case study CB3058 Due Oct 12
Week 8 October 13 – 19	Parasites and prions	Song Liang	Chapters 23,25,&26	
Week 9 October 20 – 26				Midterm exam Open October 18 - 21
Week 10 October 27 – November 2	Microbial risk assessment	Song Liang	Chapter 3	
	HACCP, development of risk-based food safety systems	Glenn Morris	Chapters 4&35	
Week 11 November 3 – 9	Preharvest food safety: animals	Chad Carr		
	produce	Michelle Danyluk		
Week 12 November 10 - 16	Foodborne disease surveillance and outbreak investigations	Carina Blackmore	Chapters 33&34	
	Food safety monitoring	Tiffiani Onifade		

	Risk-Based Inspections	Cynthia Walker		
Week 13 November 17 - 23	Legal basis for food safety regulation	Caroline Smith DeWaal	Chapter 36	
Week 14 November 24 - 30				Project presentations: Class Project due in Assignments and Discussions by Nov. 24
Week 15 December 1 - 7				Project presentations : Peer Comments on Class Projects due in Discussions by Dec. 5
Week 16 December 8 - 14	Final exam review			Final exam Open Dec. 14 - 18
Week 17 December 15 - 19				

Exam Proctoring Service

The online MPH program will be using ProctorU for online proctoring services for the exams in this course. This service will be used by all students taking this course online, regardless of whether you are an on-campus student or not. You can access ProctorU at www.proctoru.com. Detailed guidelines for this proctoring system are available on your course website. Below is a short overview, please view the "Taking Exams" file in your online course site.

- Students are REQUIRED to have a microphone and webcam in place during the test-taking period.
- Students will NOT be allowed to take an exam without a webcam.
- Students must register for a time slot for their course exams with ProctorU starting the second week of the semester, but no later than 3 days prior to an exam.
- Exams will be administered 9:00AM – midnight (Eastern time), seven days a week – exams will CLOSE at the posted time in the course – do NOT schedule an exam appointment with ProctorU that will take you past this time, even if they allow it, i.e. do NOT sign up for an appointment at 11:00PM on the last day of the exam as the exam will close at 11:55PM and your exam time will only be 55 minutes versus the time allotted in the course for the exam.

- Exams scheduled for AFTER midnight (Eastern US time) will not have access to program assistance during your exam – it is highly recommended that you take your exams ONLY during the time of 9AM-midnight Eastern US time
- No one is allowed in the room with you while you take your exam, so be sure to make proper arrangements.
- The proctor will ask you for two forms of picture ID and may ask some public record questions to identify yourself
- Please plan on 1-hour beyond the test taking time for interfacing with ProctorU

Proctoring fees are prepaid. For exams scheduled less than 3 days before an exam, ProctorU will charge a \$5 US for late fee, which will be the student's responsibility to pay.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity (see Student Conduct Code, the Graduate Student Handbook or these web sites for more details:

<http://www.dso.ufl.edu/sccr/honorcodes/conductcode.php>

<http://www.dso.ufl.edu/studenthandbook/studentrights.php>

<http://gradschool.ufl.edu/students/introduction.html>

Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

*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

As an online asynchronous course there is no classroom attendance required. Student participation in the course site is tracked by the Sakai system and may be referenced in regards to student participation and course advancement.

Policy Related to Make-up Exams or Other Work

Make-up Work

The expectation of this course is that you will view all lectures, read all reading assignments and complete assessments and assignments according to the syllabus schedule. Personal issues with respect to class participation or fulfillment of course requirements will be handled on an individual basis.

Accommodations for Students with Disabilities

If you require accommodation because of a disability, you must first register with the Dean of Students Office (<http://www.dso.ufl.edu/>). The Dean of Students Office will provide

documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the UF Counseling & Wellness Center, 352-392-1575. Visit their web site for more information: <http://www.counseling.ufl.edu/>.

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services, including primary care, women's health care, immunizations, mental health care, and pharmacy services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: www.health.ufl.edu/shcc

Crisis intervention is always available 24/7 from:

Alachua County Crisis Center:

(352) 264-6789

<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

BUT – Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.