

Environmental Health Concepts in Public Health

PHC 6313 Fall 2007 WebCT course

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Course description

This course is a survey of major topic areas of environmental health. It will examine sources, routes, media, and health outcomes associated with biological, chemical and physical agents in the environment. It will cover how the agents affect disease, water quality, air quality, food safety, and land resources in community and occupational settings. The course will introduce the students to the current legal framework, policies, and practices associated with environmental health issues and intended to improve public health.

Course objectives

Upon completion of this course, students will be able to:

1. Describe some the history leading to our current approach to dealing with environmental health issues
2. Define the major sources of biological, chemical and physical agents found in water, air, soil, and food
3. Describe the spectrum of environmental and occupational health problems associated with those agents
4. Characterize target populations exposed to hazardous agents
5. Describe the tools that are used to analyze health impacts of environmental exposures such as toxicology, exposure assessment, risk assessment, epidemiology, and industrial hygiene
6. Describe methods used to detect, manage, control, or remove health hazards
7. Describe the existing regulatory framework for controlling environmental and occupational agents

Text book

Environmental Health

Dade W. Moeller Harvard University Press, 2004 ISBN 0-674-01494-4

Format

This course is taught as a series of content modules, covering one specific aspect of environmental health. Each module may contain recorded lectures, power point presentations and required readings from the textbook, as well as assignments and assessments. You are responsible for all course content regardless of the format. Some weeks more than one module may be assigned. A separate overview showing the due

date for content modules and assignments is available for your convenience at the end of the syllabus. All assignments, discussion posts and tests are to be completed or submitted by 11:59 PM on the day they are due.

Written assignments

There will be seven written assignments, typically one to two pages long. Detailed instructions will be provided with each assignment. Assignments are to be turned in as MS Word files (10-12 font size, single-spaced, default margins) and they will be returned to you with comments. Assignments are normally intended as individual projects. If the work is shared, and this is acknowledged upfront, the credit will be split accordingly. If there is no acknowledgment of shared work, this will be treated as a form of plagiarism.

Discussion Board Participation

There is much to learn from each other in this kind of course. This will be your opportunity to share your experiences and expertise. There will be weekly discussion topics, on which you are required to post. Posts addressing the topic will receive credit. It is important that you read what others have posted, and part of your discussion board credit depends on your engaging others in discussions, where appropriate. Although there is no minimum required number of comments on other posts, extra credit will be awarded to those demonstrating a real participation. Posts and comments must be substantive (“me too”, “I agree” etc. do not count).

Module Quizzes

Your understanding of the different individual modules will be tested by eight quizzes. Quizzes are open-book. The short amount of time available, however, requires you to master the course material. Quizzes are available from Saturday through Tuesday.

Exams

There will be two exams, a midterm and a final. The final will be cumulative, i.e. it will cover all the material in the course. Exams are available from Saturday through Thursday.

Course Policies

Behavior on the Discussion Board. You are expected to maintain a civil tone and respect the opinions of other posters. While commenting on others’ posts is encouraged and at times required, aggressive or patronizing tone and language are unacceptable and may result in the loss of your posting privileges and relative discussion points.

Plagiarism. You are expected to know and follow the Academic Honesty Guidelines. Plagiarism is especially damaging in an online learning environment and will be dealt with in an official way according to University of Florida regulations. Incidents will be reported directly to the Office of Student Judicial Affairs and a formal procedure will be started in each and every case. There will be no informal incident resolution between student and instructor. Should you have any doubts on whether something constitutes plagiarism, consult the many available resources on the topic, e.g. starting with

<http://web.uflib.ufl.edu/msl/subjects/Physics/StudentPlagiarism.html>, or contact the instructor in advance.

Late assignments. Assignments turned in up to 24 hours late will be discounted 15% of the grade they would otherwise receive. Assignments turned in more than 24 hours late will not be graded and will contribute zero points toward your final grade.

Missed Assignments. Missed assignments, quizzes and discussion posts will contribute zero points toward your final grade. There will be NO makeups.

Special Circumstances. In the event of exceptional situations that may interfere with your ability to perform an assignment or meet a deadline, contact the instructor as soon in advance of the deadline as possible. Such special cases will be dealt on an individual basis, provided you have sufficient documentation.

Special Accommodations. Students desiring a special accommodation because of any disability should contact the Disability Resources Program of the Dean of Students Office to obtain a letter identifying the needs. This letter should be provided to the instructor at the beginning of the semester. Please note that the Disability Program is very mindful of your privacy rights.

Contacting the instructors

You are encouraged to contact the TA and the instructor for clarification and assistance with the course material and the assignments, and for special issues that may arise. If the issue or question may be of interest to others, your best option is to post it on the discussion board, in the “Always Open” section.

For individual issues, the best way to reach the instructors is using the course e-mail. Weekday daytime emails have the best chances of being answered quickly. Evening and nighttime messages will most likely be addressed on the following day. Weekend messages may occasionally receive a weekend response, but do not normally expect that.

Grade Contributions

Module quizzes (8)	24%
Assignments (7)	21%
Class participation/discussion board	15%
Midterm	20%
Final	20%









Grade point equivalence








Average score	Grade
>90%	A
85-90%	B+
80-84.9%	B
75-79.9%	C+
70-74.9%	C
65-69.9%	D+
60-64.9%	D
<60%	F

Acknowledgment

The goals, the content and much of the format of this online course were developed by Dr. Natalie Freeman, Environmental Health Program at the University of Florida, to whom our grateful thanks go.

PHC 6313 WEBCT COURSE CONTENT: FALL 2007

WEBCT SECTION	Dates	LECTURE # & TITLE	POWERPOINT FILE	READINGS	ASSIGNMENTS [Dates]	DISCUSSIONS [Dates]	ASSESSMENTS [Dates]
"Start Here" Section 	Aug 23 – Aug 27	0: Intro Faculty Video and Directions for Using Lecture Files	IntroVideo.ppt		0-Go through the "Start Here" Module to acquaint yourself with how WebCT operates [Thurs. 8/23]	0- Getting Acquainted [Thurs. 8/23 – Mon., 8/27]	Quiz – Syllabus and course resources [Thurs. 8/23 – Mon. 8/27]
Section 1: Module 1: Introduction to Environmental Health 	Aug 27 – Sept 2	1: Introduction	Introduction.ppt	Chapter 1 of <i>Environmental Health</i> by Moeller		1- Identify Key EH Topics [Mon. 8/27 – Tues. 9/4]	Quiz 1: Introduction [Sat. 9/1 – Tues. 9/4]
Section 1: Module 2: Toxicology 	Sept 3 – Sept 9	2: Toxicology, 1 of 4 3: Toxicology, 2 of 4 4: Toxicology, 3 of 4 5: Toxicology, 4 of 4	Toxicology1.ppt Toxicology2.ppt Toxicology3.ppt Toxicology4.ppt	Chapter 2	1-Toxins in the Environment [Wed. 9/12]	2 – Toxicity Tests [Mon. 9/3 - Tues. 9/11]	
Section 1: Module 3: Epidemiology 	Sept 10 – Sept 16	6: Epidemiology	Epidemology.ppt	Chapter 3		3-Meaning of Causality [Mon. 9/10 - Tues. 9/18]	Quiz 2: Toxicology and Epidemiology [Sat. 9/15 – Tues. 9/18]
Section 1: Module 4: Exposure Assessment 	Sept 17 – Sept 23	7: Exposure Case Study	Exposure Assessment.ppt	Chapter 16		4-Exposure Assessment [Mon. 9/17 - Tues. 9/25]	
Section 1: Module 5: Risk Assessment 	Sept 24 – Sept 30	8: Risk Assessment 9: Risk Communication	Risk Assessment.ppt Risk Communication.ppt	Chapter 17	2-Superfund Exposures [Wed. 10/3]	5-Risk Assessment [Mon. 9/24 - Tues. 10/2]	Quiz 3: Monitoring Exposure Assessment and Risk Assessment [Sat. 9/29 – Tues. 10/2]
Section 1: Module 6: Laws & Regulations 	Oct 1 – Oct 7	10: Environmental Law, 1 of 2 11: Environmental Law, 2 of 2	Laws and Regulations.ppt Laws and Regulations.ppt	Chapter 14 Chapter 15		6-Laws & Regulations [Mon. 10/1 - Tues. 10/9]	Quiz 4: Environmental Laws and Standards [Sat. 10/6 – Tues. 10/9]
Section 2: Module 7: Ambient and Indoor Air 	Oct 8 – Oct 14	12: Ambient Air 13: Indoor Air	Ambient Air.ppt Indoor Air.ppt	Chapter 5	3-Environments and Populations at Risk [Wed 10/17]	7- Ambient & Indoor Air [Mon. 10/8 - Tues. 10/16]	

Section 2: Module 8: Water Sanitation and Waste 	Oct 15 – Oct 21	14: Water Resource Sustainability, 1 of 3	Water1.ppt	Chapter 7 Chapter 8	4-Arsenic in Drinking Water [Wed. 10/24]	8-Arsenic in Drinking Water [Mon. 10/15 - Tues. 10/23]	Quiz 5: Air, Water and Waste Water [Sat. 10/20 – Tues. 10/23]
		15: Water Resource Sustainability, 2 of 3	Water2.ppt				
		16: Water Resource Sustainability, 3 of 3	Water3.ppt				
Section 2: Module 9: Solid Waste 	Oct 22 – Oct 28	17: Solid Waste	Solid Waste1.ppt	Chapter 9 Chapter 10		9-Solid Waste – Rodents and Insects [Mon. 10/22 - Tues. 10/30]	MIDTERM EXAM [Sat. 10/27 – Thur. 11/1]
		18: Hazardous Waste	Solid Waste2.ppt				
Section 2: Module 10: Food Soil & Dust 	Oct 29 – Nov 4	19: Food Protection	Food.ppt	Chapter 6	5-Food Sanitization [Wed. 11/7]	10-Managing our Sources of Food [Mon. 10/29 - Tues. 11/6]	Quiz 6: Food Safety and Sanitation [Sat 11/3 – Tues. 11/6]
		Section 2: Module 11: Assessing Children's Environments 	20. Assessing Children's Environments	Children.ppt	Chapter 11		11-Children's Health [Mon. 10/29 - Tues. 11/6]
Section 2: Module 12: The Occupational Environment 	Nov 5 – Nov 11	21: Occupational Health, 1 of 5	Occupational Health1.ppt	Chapter 4	6-Occupational Exposure [Wed. 11/21]	12-Unexpected and Surprising Hazards [Mon. 11/5 - Tues. 11/20]	Quiz 7: Occupational Health [Sat. 11/17 – Tues. 11/20]
		22: Occupational Health, 2 of 5	Occupational Health2.ppt				
		23: Occupational Health, 3 of 5	Occupational Health3.ppt				
	Nov 12 – Nov 18	24: Occupational Health, 4 of 5	Occupational Health4.ppt				
		25: Occupational Health, 5 of 5	Occupational Health5.ppt				
Section 2: Module 13: Radon and Energy 	Nov 19 – Nov 25	26: Radon	Radon.ppt	Chapter 12 Chapter 18		13-Energy [Mon. 11/19 - Tues. 11/27]	Quiz 8: Radiation and Energy [Sat. 11/24 – Tues. 11/27]
		27: Energy Production and Consumption	Energy.ppt				
Section 2: Module 14: Other Environmental Health Issues 	Nov 26 – Dec 2	28: Disease Transmission	Disease.ppt	Chapter 19 Chapter 20	7- Current Events [Wed. 12/5]	14-Other Environmental Health Issues [Mon. 11/26 - Tues. 12/11]	FINAL EXAM [Sat. 12/8 – Thur. 12/13]
		29: Bioterrorism	Boiterrorism.ppt				
		30: Critical Issues	Critical Issues.ppt				
	Dec 3 – Dec 9	31: Disaster	Disaster.ppts				
		32: Community Health	No slides, a video				