Environmental Health Concepts in Public Health

PHC 6313 Spring E-Learning Course/ Fall on-campus Syllabus

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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 these agents affect disease, water and air quality, food safety, and land resources in community and occupational settings. The course will introduce the students to the economic context and to the current legal framework (U.S. federal) associated with environmental health issues and public health.

Course objectives

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

- 1. Outline the historical, social and economic context 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
- 8. Identify the major economic and social implications of policy options related to environmental health

Course Materials

Text book

Environmental Health

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

Online Modules

This course is taught as a series of content modules, each covering one specific aspect of environmental health. Each module may contain recorded lectures, power point presentations, external links, videos, discussions and required readings from the textbook, as well as assignments and assessments. You are responsible for all course content regardless of the format. During select weeks more than one module may be assigned. A separate overview showing the due dates 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 11:59PM (23:59) EST on the day they are due.

Syllabus

The syllabus is posted in this course under the Syllabus tool (in the left column) on the course site. It is very important that students view the syllabus on a regular basis as you will not have a classroom teacher to remind you of important, upcoming deadlines. To start the course you will need to take a syllabus quiz and get a perfect score before you open the rest of the course. You may take this quiz as many times as necessary to get a perfect score.

Course requirements

Written assignments

There will be five written and graded assignments (and 1 non-graded assignment), typically one to two single-spaced pages long. Detailed instructions will be provided with each assignment. Assignments are to be turned in as plain text, unless otherwise indicated. Write them in your preferred word processor file, and then copy and paste them into the text box. 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. Assignments may be required to be submitted via www.turnitin.com in this course. This tool will pick up any passages in students' work that comes from another source. Be sure to adequately cite your sources/references for these assignments to avoid plagiarism.

Assignment 1 (non graded)
Assignment 2 –Toxicology
Assignment 3 – Epidemiology
Assignment 4 – Risk Management
Assignment 5 – Water
Assignment 6 - Food

Group Discussion Boards: You will be assigned to one of several groups, identified by a letter (A-F). ALL students in the class will be assigned a journal article to read. The chosen group for that article will present answers to assigned questions and post their responses on the discussion board. All members of the group will be expected to contribute substantially to that weeks discussion. Participation is open to (and encouraged from) anyone in the class in response and can agree or disagree with the group post. Group members are expected to;

- 1. Actively participate in the topic formulation
- 2. Post substantive, well-researched contributions to the assigned discussion, including data, links to relevant web sites, or attached copies of articles, presentations, etc. as needed. Limit these posts to approximately 500 words.
- 3. Lead the discussion and respond to other posts, from group members or others.

Discussion topics are related to that weeks module (e.g. toxicology etc.) and should stimulate discussion based on what you have learned. You can include other outside sources and highlight current controversial issues.

You are encouraged to post links to external web sites or videos. Group members should discuss possible topics in the appropriate thread of the 'Within-group discussions' forum. The instructors will monitor this preliminary discussion and help you in selecting a topic. You should start discussing your topic well in advance of the date your assigned discussion will open. Final topic choice must be communicated to the instructor at least a working day before it is to open (Friday for Monday). Participation in your group's discussion (both before and after the topic is selected and posted) will receive up to 20 points; grading will be based on how you fulfilled points 1-3 above.

There is much to learn from each other in this kind of course. This will be another opportunity to share your experiences and expertise. Everyone' experience will be better if you choose to participate when you have something meaningful to contribute. Please limit these posts to approximately 300 words. Once you post something, you are responsible for addressing questions and comments that other students and the instructor may post in response. Do not, however, take a lack of response to your contributions to mean that your post was not interesting: some posts say all that needs to be said on a topic, and the instructor usually comments only to make or clarify specific points. IMPORTANT: A significant portion of the exams may be based on topics explored only in the discussion boards. Please make sure to post all discussion postings in the appropriate discussion board topic. Keep all personal comments in the 'Getting Acquainted or 'Social' discussion boards.

Exam Reviews

Your understanding of the different individual modules will be tested by a series of questions in preparation for each of the two exams. They are provided to you as a self-assessment tool for the course, to check your degree of familiarity with basic course material. There will be a discussion board prior to each exam to answer and questions that are unclear.

Exams

There will be two exams: a midterm and a final. The midterm exam will test your knowledge of terminology and fundamental concepts. Although it is technically "open-book", it will be very fast-paced, and you will likely not have time to consult anything but your memory to answer the questions. This exam will include short to medium length questions (1-2 paragraphs). The final will be cumulative, i.e. it will cover all the material in the course. You will have more time and will be free to consult any resource you choose (lectures, books, internet), except another person. This exam will be primarily comprised of short essay questions where you will be expected to interpret the material that is presented in the course and apply it to the scenarios or situations that the exam questions present.

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 or required, aggressive or patronizing tone and language are unacceptable and may result in the loss of your posting privileges and relative discussion points.

Academic Integrity. You are expected to know the University of Florida policy on academic integrity and act accordingly (see Student Conduct Code and/or visit www.dso.ufl.edu/judicial/procedures/academicguide.php). Cheating, lying, misrepresentation or plagiarism in any form is unacceptable and inexcusable behavior. 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. As you submit assignments, you will have the opportunity to check it for unintentional plagiarism using Turnitin®, the same software that instructors will use to check your work. You are encouraged to take advantage of this option. If you discover an unacceptable fraction of your work is reported as non-original work, simply amend it and re-

submit it before the deadline. It may take 30 minutes or more for a report to be generated, in some cases, so plan accordingly.

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, unless arrangements have been made in advance with the instructor or online administrator. Be aware that assignments turned in at 11:55:01PM are marked LATE, as the software uses 5-minute increments; that does not mean your submission will be penalized, though, as long as it took place before midnight. *Please note:* It is the responsibility of students to verify not only that an assignment was submitted, but that an attachment (if required) was made and was the correct attachment.

Missed Assignments. Missed assignments and discussion posts will contribute zero points toward your final grade.

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 instructor(s). You are encouraged to contact the instructor for clarification and assistance with the course material and the assignments, and for special issues that may arise via the E-Learning e-mail system. 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 (US Eastern Time) 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 Components

Assignments (5 @ 4% each) = 20% Group Discussion = 20% Midterm exam = 30% Final exam = 30% Total = 100%

Grade point equivalen ce Score	Grade	Score	Grade	Score	Grade	Score	Grade
95-100%	A (4.0)	83-87%	B (3.0)	73-77%	C (2.0)	63-67%	D (1.0)
90-95%	A- (3.67)	80-83%	B- (2.67)	70-73%	C- (1.67)	60-63%	D- (0.67)
87-90%	B+ (3.33)	77-80%	C+ (2.33)	67-70%	D+ (1.33)	Below	E (0.0)
						60%	

Modules

WEBCT SECTION	DATES	READINGS	ASSIGNMENTS [Dates]	DISCUSSIONS [Dates]	ASSESSMENTS [Dates]
WEBCT COURSE CONTENT	Aug 22 – Aug 28		Go through the "Start Here" Module to acquaint yourself with how E- Learning operates		SYLLABUS QUIZ must be taken to open course materials
Module 1: Introduction to Environmental Health	Aug 29 – Sept 4	Intro Video and Chapter 1	Assignment 1 (not graded) due Sept 5		
Module 2A: Toxicology	Sept 5 - Sep. 11	Chapter 2 and Journal Article	Assignment 2 Due Sept 12	Toxicology (Group A, Sept 5 – Sept 11)	
Module 2B: Toxicology	Sep. 12 – Sep. 18	Chapter 2 and Journal Article			
Module 3: Epidemiology	Sep. 19 – Sep. 25	Chapter 3		Epidemiology (Group B, Sept 19 - 25)	
Module 4A: Risk Assessment and Management	Sep. 26 – Oct. 2	Chapter 17	Assignment 3 due Oct 2		
Module 4B: Risk Assessment and Management	Oct. 3 – Oct. 9	http://www.yo utube.com/wa tch?v=mJ3Kh aIATIA&playn ext=1&list=PL CF6E70399F 53DEF5			
Module 5: Law and	Oct.10 – Oct. 16	Chapter 14	Assignment 4 Due Oct 16	Risk Assessment, management	Midterm exam review

Economics				and Laws and Regulations (Group C, Oct 10 – Oct 16)	
Module 6: Exam review	Oct. 17 – Oct. 23				MIDTERM EXAM Oct 17 – 23 to cover Modules 1 - 5
Module 7: Ambient and Indoor Air	Oct. 24 – Oct. 30	Chapter 5		Ambient and Indoor Air (Group D, Oct 31)	
Module 8: Drinking Water and Water Sanitation	Oct 31 – Nov 6	Chapter 7 and 8	Assignment 5 due Nov 7		
Module 9: Solid Waste	Nov 7 – Nov 13	Chapter 9			
Module 10: Food Safety	Nov. 14 – Nov. 20	Chapter 6		Food, Soil and Dust (Group E, Nov 14 – Nov 20)	
Module 10: Children's Health	Nov. 21 - Nov 27	Reading	Assignment 6 due Nov 28	Children's Health (Group F, Nov 21 – Nov 27)	
Final Exam Review	Nov. 28 – Dec. 4				Final Exam Review FINAL EXAM Dec. 5 – Dec 10

You tube videos

"30 years after Love Canal" http://www.youtube.com/watch?v=Xfapp83sHfE

"Erin Brockovich is back"

http://www.youtube.com/watch?v=mJ3KhalATIA&playnext=1&list=PLCF6E70399F53DEF5

"Rachel Carson: The Impact of Silent Spring"

http://www.youtube.com/watch?v=aycQKk4gn Y&feature=related

Oil Spill Responsibility & Risk Assessment -- Prof Mark Schwartz | York U, LA&PS Faculty http://www.youtube.com/watch?v=JRU-aLb7Als

"Challenges of an Epidemiologist Working in Genomics" http://www.youtube.com/watch?v=21bQOTglsmE

Beijing air quality for 2008 Olympics http://www.youtube.com/watch?v=0Tjy6x2wOqk

Water recycling in Jordan http://www.youtube.com/watch?v=HNAS bfvW3s

Recycled wastewater... on wine grapes?
http://www.youtube.com/watch?v=OR SWWikTLY

Recycling: What Happens When Plastic Is Recycled? http://www.youtube.com/watch?v=NHvvvGrAFnU