

University of Florida
College of Public Health & Health Professions Syllabus
PHC 6313: Environmental Health Concepts in Public Health (3 credit hours)
Fall 2017
Delivery Format: In person supported via e-learning in Canvas
Thursday 8:30 – 11:30 AM HPNP 1101

Instructor: Karoun H. Bagamian, PhD
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Teaching Assistant: Joseph Sacht
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Preferred Course Communications: The “Inbox” in Canvas will be used for all email correspondence. Instructors and TAs will not be responsible for emails sent their “UFL” email addresses

Prerequisites

None

PURPOSE AND OUTCOME

Course Overview

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 touch on legal frameworks associated with environmental health issues and public health.

Course Objectives and/or Goals

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

1. Define the major sources of biological, chemical and physical agents found in water, air, soil, and food
2. Understand chemical and pathogen routes of exposure, toxic mechanisms of action, and health impacts
3. Describe the tools that are used to analyze health impacts of environmental exposures, such as toxicology, exposure assessment, and epidemiology
4. Describe the role of risk assessment paradigms in creating safe environments, including target populations exposed to hazardous agents
5. Describe methods used to detect, manage, control, or remove health hazards
6. Understand the existing regulatory framework and policy for controlling environmental and occupational agents

Relation to Program and Learning Outcomes

Competencies primarily gained in this course

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community using an ecological framework
3. Inform, educate, and empower people about health issues
4. Use laws and regulations that protect health and ensure safety
5. Communicate effectively with constituencies in oral and written forms

Competencies reinforced in this course

1. Mobilize community partnerships and action to identify and solve health problems
2. Develop policies and plans that support individual and community health efforts
3. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
4. Conduct research for new insights and innovative solutions to health problems

Instructional Methods

1. Lectures: are for general orientation. Students are responsible for all the material presented in the course and assigned readings. This will be the main source of content in this course.
2. Readings and Resources. In addition to the required text, supplementary readings and resources will be posted in the course. The reading list may be supplemented during the course.
3. Assessments: A variety of assessments will be used in this course, including but not limited to debates, discussions, In the News projects and exams.

What is expected of you?

You are expected to attend weekly lectures and complete all readings, assignments, and exams. Additionally, you are expected to actively engage in the course throughout the semester. Your participation fosters a rich experience for you and your peers that facilitate overall mastery of the course objectives. Note that some of the course contact hours may be assigned outside of class (i.e. watching a video prior to class for discussion).

DESCRIPTION OF COURSE CONTENT

This course is taught as a series of modules, each covering one specific aspect of environmental health. Each module may contain lectures, external links, videos, discussions and required readings as well as assignments. You are responsible for all course content regardless of the format. The topical Outline/Course Schedule below details the dates of content modules and assignments. Debates and Exams are also listed.

Getting Started

1. Visit <http://lss.at.ufl.edu> and login to e-Learning in Canvas using your Gatorlink ID and password.
2. Find our course website. It will be listed as PHC4320-Environmental Health Concepts –Fall 2017

Course Materials and Technology

Text book (optional):

Environmental Health, 4rd edition

Dade W. Moeller Harvard University Press, 2011 ISBN 9780674047402

e-Learning in Canvas site:

There will be an online site for this course in Canvas, the learning management system supported by the University. Log in at <https://lss.at.ufl.edu/> and go to course site for PHC 4320 for Fall 2017.

Here, we will post the syllabus, lecture slides, assignments and allow for communication between the students and course instructors. You will also turn in assignments through this site. Once the course begins, all communication will take place through the e-Learning in Canvas site. This includes all emails. This will eliminate any issues with students not getting emails due to connection problems. It will be your responsibility to check the site on a routine basis to keep up with announcements, emails, and course modifications.

For technical support related to course materials and links, please contact Dr. Bagamian and the online course coordinator Truly Hardemon (hardemont@phhp.ufl.edu).

For technical support for this e-Learning in Canvas, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

ACADEMIC REQUIREMENTS AND GRADING

General information

Assignments are to be turned in as a Word document or PowerPoint file as directed, unless otherwise indicated. Many of the requirements will be returned to you with comments. If you have unexpected issues with Canvas, you may email the assignment to the course TA and instructor directly. Assignments are normally intended as individual projects unless otherwise directed. Shared work may be treated as a form of plagiarism. Assignments may be required to be submitted via Turnitin in this course (this will be done automatically in the Canvas Assignment). This tool will pick up any passages in students' work that come from another source. Be sure to adequately cite your sources/references for these assignments to avoid plagiarism (see format below). Also please confirm that your work is not overtly plagiarized, the Turnitin system will give you a report. Some similarity is expected and unavoidable, however if large portions are copied from other sources, this will be as considered plagiarism.

The Canvas assignment tool will notify you confirming the submission of your assignment. PLEASE check your UFL email at <http://webmail.ufl.edu> on a regular basis for these and other email notices from the course site. If you do not receive an email confirmation within 2 hours of submission, please return to the site and resubmit your assignment. It is a student's responsibility to verify that they turn in assignments on time and that they turn in the CORRECT assignment attachment. Please take a few moments to open your submitted attachment and verify that you have submitted to correct file.

You will be graded in the course through the use of 4 different learning assessments which are as follows:

1. Written Assignments

There will be 5 written and graded assignments (50 points each; Total 250 points). Typically these will be one to two single-spaced pages long. Detailed instructions will be provided with each assignment.

Assignments 1 - 5 are to be turned in as a Word document in the Canvas Assignment tool, unless otherwise indicated. If you have unexpected issues with Canvas, you may email the assignment to the course TA and professor directly. Assignments are normally intended as individual projects unless otherwise directed. Shared work may be treated as a form of plagiarism. Assignments may be required to be submitted via Turnitin in this course (this will be done automatically in the Canvas Assignment). This tool will pick up any passages in students' work that come from another source. Be sure to adequately cite your sources/references for these assignments to avoid plagiarism (see format below). Please check your Turnitin report by going back to the assignment and clicking on the colored box icon in the assignment (you want to achieve a blue or green indication) – anything yellow, orange or red should be adjusted and resubmitted BEFORE the assignment deadline. So, it is recommended that you submit EARLY to enable you to utilize this option of resubmission. Resubmissions after the due date may be subject to a late submission penalty.

2. Group Debate Assignment

Each student will complete one debate assignment during the semester. You will be assigned to one debate. There will be 6-10 students per topic with 3-5 students per team. For this exercise, two teams for each topic will research and defend a 'pro' or 'con' stance for a pre-assigned topic. Each team will upload **one** Powerpoint presentation of approximately 10 slides that highlight their 'pro' or 'con' stance on the topic. Designate a member of your group to turn the assignment in and you will all receive the same grade for your group. Each group will be required to follow the specific format described in the debate instructions (provided as a separate document).

There will be 2 components towards your grade when you directly participate in your debate:

(1) Group presentation (100 points): For this part of the assignment, you and your team will be graded on your knowledge and presentation. The structure and points to cover will be explained in more detail for each panel.

(2) Written assignment (100 Points): For this part of the assignment, each student in the group will independently prepare and submit approximately a 5-6 page, 11 font double-spaced word essay describing support for their assigned stance 'pro' or 'con' with at least 5 reputable sources (see format below), such as data gathered from PubMed, Web of Science, or governmental agencies. You cannot support your claim with public discussion sources or material that is opinion based. You can present situations regarding public opinion with reliable sources or describe events (protesting etc.), but these stories will not count as your 5 major sources. You can work with your group to gather information but

the paper is to be independently written by each student and reflect all the information researched to support your stance. The last paragraph will be an opportunity to describe whether you personally agree or disagree with the stance that you defended and why. This assignment will be due on the day of your presentation.

Citation format;

Weppelmann TA, Sabo-Attwood T, Bisesi JH, et al. The best scientific publication ever written in the history of mankind. *Science*. 2015; 178:1975-85.

3. In the News Assignment

Each student will be required to present one 'In the News' assignment in class (100 points). For this assignment, each student will be assigned to a topic area at the beginning of the semester, such as 'toxicology' or 'infectious disease'. You will perform a search to identify a current news story that relates to this topic. The 'news' can be positive, negative, changes in policy, public concerns, etc. You may use general public news forums (TV, web, newspaper); however, please make sure that the sources are credible.

This assignment will consist of two components:

(1) You are to prepare 1 Powerpoint slide that describes the event. This slide can be visual – with pictures, embedded video links, etc. Please include a link to the article using appropriate citation format (see "In the news" assignment description on Canvas) on the slide. This will be briefly presented in class, followed by a question and answer section, and will take no more than 3 minutes per student.

(2) You are to prepare 1-2 page double-spaced description that provides the following information plus references:

- a. Describe the 'news' item in brief and how it relates to the assigned category (i.e. toxicology).
- b. Is the news projecting or emphasizing a positive influence on public health or a concern? What evidence do they have?
- c. What do the experts say should be done about it? Is there controversy?

An example 'In the News' assignment will be posted on Canvas. Make sure to cite your references in proper format at the end of your written document (not included in the 2-page limit). (Please see citation format under Section 2 "Group Debate Assignment".) The due date for this assignment will be based on the topic you are assigned as due dates are associated with the specific topic. After the due date for each topic, the PowerPoint slides for each news story will be compiled into a single Powerpoint presentation and posted on Canvas. **All students will need to view these compiled PowerPoints as the material may be on the exam.**

4. Exams

There will be two in class exams: a midterm and a final (200 points each; Total 400 points). The format for both exams will be **CLOSED BOOK**. The midterm exam will test your knowledge of the first series of modules, including material covered in lectures, in the news slides, and assigned readings. The final exam will focus on material covered in modules from the midterm onward; however, as this material builds on concepts presented during the first half of the course, it will be imperative to have a good comprehension of material covered during the first part of the course. Both exams will be comprised of multiple choice, matching, and true/false 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. You will have 2 hours to complete each exam. Exams will be administered in class. Please bring a valid Gator One card to verify your identity on the date of the exam.

Exam Reviews

An exam review document will be posted the week before each exam with an additional review in class. There will also be a discussion board in the course dedicated to student questions about the exam.

Grading

Requirement	Due date	Points
Written Assignments = 5 @ 50 points each	See Course Schedule	250
Debate = 1 @ 100 points each	See Course Schedule and team assignment	100
Debate Written Report = 1 @ 100 points	See Course Schedule and team assignment	100
Debate Evaluations = 5 @ 10 points each	See Course Schedule	50
In the News = 1 @ 100 points	See Course Schedule and team assignment	100
Midterm Exam = 1 @ 200 points	See Course Schedule	200
Final Exam = 1 @ 200 points	See Course Schedule	200
TOTAL		1000

Point system used (i.e., how do course points translate into letter grades).

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

Please be aware that a C- is not an acceptable grade for graduate students. In addition, a grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

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>

Late Assignments and Make Up Work

Assignments turned in up to 24 hours late will be discounted **10%** of the grade that 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. Missed assignments 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 that you have sufficient documentation.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

All faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Communication Guidelines

You are encouraged to contact by email using the “Inbox” in Canvas for clarification and assistance with the course material and the assignments, and for special issues that may arise. Weekday daytime (US Eastern Time) emails have the best chances of being answered quickly. Please only use the Canvas “Inbox” to communicate with the course instructor and/or TA. While the instructors and TAs will check their UFL email regularly, they will not be held responsible for email sent directly to their UFL addresses.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

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

Please remember 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, please 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. There is also a reference posted in the course site, in the Course Help link. 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 turn in assignments that are plagiarized, you will receive zero points for that assignment.

You are expected to turn in original work in this course. This means that when answering assignment questions, writing papers, posting discussions, etc., you will be expected to write your responses in your own words. You **MAY NOT** copy answers word for word from any course materials or outside sources. On occasion, it may be useful to provide a quote from course materials or outside sources in which case you must properly cite the source and place the quote in quotation marks. However, we strongly urge you to avoid excessive quotation as it does little to demonstrate your understanding of course material.

Online Faculty Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- 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. 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: <https://shcc.ufl.edu/>
- 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>

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.

Topical Outline/Course Schedule

Modules	Class Dates	Topic(s) and Speaker(s)	Reading(s)	Course activities	Assignments	In the News
Getting Started 1	August 24	Syllabus Academic Integrity	Syllabus	Logistics	N/A	N/A
		Introduction to Environmental Health – Dr. Tara Sabo-Attwood	Optional: <i>Environmental Health</i> Chapter 1: The Scope Pages 1-22	Lecture		
				Group activity		
2	August 31	Toxicology and Environmental Disease – Dr. Tara Sabo-Attwood	Optional: <i>Environmental Health</i> Chapter 2: Toxicology Pages 23-42	Group Activity	N/A	N/A
				Lecture		
3	Sept 7	Emerging Contaminants – Dr. Tara Sabo-Attwood/ Dr. John Lednický	N/A	Lecture (In class)	Assignment 1 given; due by Sept 14	N/A
4	Sept 14: No in-class meeting	Risk Assessment, Management, and Communication – Dr. Leah Stuchal	Optional: <i>Environmental Health</i> Chapter 15: Risk Assessment and Communication Pages 340-363	View recording of lecture at home - will be posted Sept 15th	Assignment 1 due Assignment 2 given; due by Sept 21	
5	Sept 21	Emerging Infectious Diseases – Dr. Karoun H. Bagamian	Required: Kindhauser et al., 2016; Tanwar et al., 2014	Lecture/Activity	Assignment 2 due	In the News Presentation: Group 1 Emerging contaminants Group 2: Emerging Infectious Diseases
				In the News Group 1		
				In the News Group 2		
SEPT 28: MIDTERM EXAM (MODULES 1-5)						
Week of October 2-6 th : At home documentary viewing or activity: TBD (No in-class meeting)						
6	Oct 12	Climate Change and Global Health – (Video)	N/A	Watch climate video at home/ Group activity in class	Assignment 3 given; due by Oct 19	In the News Presentation: Group 3: Climate Change
				In the News		
				Debate 1 (In class)		

Modules	Class Dates	Topic(s) and Speaker(s)	Reading(s)	Course activities	Assignments	In the News
7	Oct 19	Air Pollution – Hao Chen	<i>Optional:</i> <i>Environmental Health</i> Chapter 5: Indoor and Outdoor Air Pages 87-112	Lecture	Assignment 3 due Assignment 4 given; due by Oct 26	In the News Presentation: Group 4: Air Pollution
				In the News		
				Watch debate 3 (Recording)		
8	Oct 26	Water and Sanitation – Dr. Karoun H. Bagamian	<i>Suggested website:</i> WHO sanitation and health: http://www.who.int/water_sanitation_health/en/ <i>Publication:</i> Liu et al., 2015	Lecture	Assignment 4 Due	In the News Presentation: Group 5: Water and Sanitation
				In the News		
				Debate 2 (In class)		
9	Nov 2	Food Safety – Dr. Karoun H. Bagamian	Required: Braden & Tauxe 2013; Erickson & Doyle 2017 Martirosyan & Schneider, 2014 <i>Optional:</i> <i>Environmental Health</i> Chapter 8: Food Pages 113-136	Lecture	Assignment 5 given; due by Nov 16	In the News Presentation: Group 6: Food Safety
				Activity		
				In the News		
Week of November 6-10 th : Watch Debate 4 (recording) at home and turn in evaluation by Nov 10th . No in-class meeting.						
10	Nov 16	One Health; TBD			Assignment 5 due	
Thanksgiving Break: No class Nov. 23						
Review or Final exam	Nov 30	Good Luck!!				