



Western Kentucky University

Department of Public Health

PH 584:701 - Principles of Environmental Health (Online)

Spring 2020

Course: PH584 Principles of Environmental Health

Instructor: Edrisa Sanyang, PhD.

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Office Hours: Via email Only

Catalog Description

Environmental Health is considered to be a study of the traditional, emerging and controversial issues associated with the environment and health. This course studies the link between the broader environment and public health. It will introduce students to physical, chemical, and biological hazards in a variety of settings both local and international. It will also highlight available national and international policies associated with common environmental health topics. The course will cover contemporary environmental health issues such as global climate change, air quality, food, water, waste, injuries and other physical hazards; and discusses approaches in communicating the environmental risks to different audiences. The instructor will utilize an integrative approach to examine current issues in global public health while introducing environmental health.

Course Objectives:

1. Explain effects of environmental factors on a population's health.
2. Explain biological and genetic factors that affect a population's health.
3. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities.
4. Explain how globalization affects global burdens of disease.
5. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (one-health).
6. Compare environmental hazards and how different agencies function to control same at both national and international settings.
7. Communicate audience-appropriate environmental health emergency messages both in writing and presentations.

8. Advocate for political, social, and economic policies to improve public health programs in diverse settings.
9. Evaluate policies for their impact on public health and health equity.

Recommended

Frumkin, H. (2016). *Environmental Health: From Global to Local*. John Wiley & Sons. ISBN-13: 9781118984765 or ISBN – 10:1118984765.

Contact Information

E-mail

The quickest way to reach me is via email at edrisa.sanyang@wku.edu. Please allow 1-2 business days for a response. If you do not receive a response within 1-2 business days, please resend your email. Chances are the email was lost in transition.

Due to the Family Educational Records Privacy Act, all correspondence must be sent using WKU e-mail. Therefore, if you do send messages from an external e-mail, your instructors and advisors will only reply to your WKU e-mail. It is your responsibility to forward WKU e-mail. All email correspondence will be sent to your WKU Topper e-mail account. By Federal Law, instructors/advisors are not permitted to send email to alternate email accounts. You are expected to read email sent to your WKU email account. If you would like to forward your email from your WKU account to another, more convenient, email account, please use the following documentation to guide you through the forwarding process: [how to forward your toppermail email to another email address](#) .

E-Mail Etiquette

In the subject line put PH584 and *Your Last Name*. Include your full name at the end of the message. My email is sorted into folders by subject line. Priority for reading and responding to email is given to students in my courses. If you do not use “PH584 *Your last name*” in the subject line, I may not see your email to respond to it in a timely manner.

Please note: Be sure to communicate in an appropriate manner. Rudeness, vulgarity, and other inappropriate comments will not be tolerated. Violations of the college’s policies on uses of technology may result in disciplinary action or expulsion from the course.

Course Assessments

Quizzes (25 points):

There is a total of five quizzes worth 5 points each. Each quiz will cover a combination of topics and consist of questions based on course lectures and readings. Quizzes will assess understanding of concepts and key definitions. They are timed at 30 minutes and students will have one attempt to complete a quiz. The syllabus shows the due date of each quiz. Assesses Objectives 1 – 5.

Blog (5 points)

Each student will submit an introductory blog of an environmental health concern or interest. The instructor will provide prompts to respond to the blog. The blog will worth 5 points and will be due in Blackboard during the second week of the semester.

Discussion Board (20 Points)

There will be a total of two discussions. A guide question will be posted in Blackboard and students are required to make submission. Students are also required to read their colleagues posts and reply to at least one (1) of them. The discussions will be on biological, chemical and physical environmental factors, as well as environmental injustice in different settings. Each discussion will worth ten (10) points for a total of 20 points. Assesses Objectives 1, 2, 5, 6, 8, 9.

Homeworks (30 points)

There is a total of two (2) homeworks for this course. These are individual assignments to assess the student's ability to apply concepts learned in the course and are worth fifteen (15) points each. The homeworks will require students to analyze and develop practical environmental health documents. Assesses Objectives 2, 4, 6 – 9.

Term Paper (20 Points)

The term paper will assess the student's ability to critique an environmental health objective and strategy of a chosen state. It will involve choosing a state and an environmental/ occupational health goal area of the Healthy People 2020 and critically assessing policy, program and interventions and recommending strategies for advancing public health. Assesses Objectives 1 – 5, 6, 8, 9.

Grading Policy

Your overall grade in this course will be determined by the final grade in this course will by using a weighted average.

The weights are as follows:

Assignment	Percent
Quizzes (<i>5 Quizzes at 5 points each</i>)	25%
Blog (<i>1 Introductory Blog at 5 points</i>)	5%
Discussion (<i>2 Discussions at 10 points each</i>)	20%
Homeworks (<i>2 homeworks at 15 points each</i>)	30%
Term Paper	20%
Total	100%

Final Grade

A = 100 – 90; B = 89 – 80; C = 79 – 70; D = 69 – 60; and F = 59 – Below

MPH Competencies

This course contributes to the development of the following competencies:

MPH COMPETENCY	Obj.
Evidence-based Approaches to Public Health	
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	
4. Interpret results of data analysis for public health research, policy or practice	
Public Health & Health Care Systems	
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	3, 4, 6
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	1, 2, 3, 4, 5
Planning & Management to Promote Health	
7. Assess population needs, assets and capacities that affect communities' health	
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	
9. Design a population-based policy, program, project or intervention	9
10. Explain basic principles and tools of budget and resource management	
11. Select methods to evaluate public health programs	
Policy in Public Health	
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	6, 7
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations	8
15. Evaluate policies for their impact on public health and health equity	9
Leadership	
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	
17. Apply negotiation and mediation skills to address organizational or community challenges	
Communication	
18. Select communication strategies for different audiences and sectors	7
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	7
20. Describe the importance of cultural competence in communicating public health content	7
Interprofessional Practice	
21. Perform effectively on interprofessional teams	
Systems Thinking (waiting on technical assistance paper from CEPH)	
22. Apply systems thinking tools to a public health issue	
WKU MPH Program Competencies	
23. Apply health behavior theories and models to address public health problems.	
24. Describe the role of budgeting; methods of seeking extramural funding; and methods of financial analysis in making decisions about policies, programs and services.	

25. Describe the roles of history, power, privilege and structural inequality in producing health disparities.	
26. Integrate social determinants into public health science, practice, and research.	
27. Identify the direct and indirect population health effects of environmental hazards (biological, chemical and physical) on humans, animals and the ecology.	1 – 5

Foundational Knowledge

This course contributes to the foundational knowledge of public health by addressing the following:

FOUNDATIONAL KNOWLEDGE	Obj.
Profession & Science of Public Health	
1. Explain public health history, philosophy and values	
2. Identify the core functions of public health and the 10 Essential Services.	
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	
6. Explain the critical importance of evidence in advancing public health knowledge	
Factors Related to Human Health	
7. Explain effects of environmental factors on a population's health	1
8. Explain biological and genetic factors that affect a population's health	2
9. Explain behavioral and psychological factors that affect a population's health	3
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	5
11. Explain how globalization affects global burdens of disease	4
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	5

Disability Policy:

ADA notice: Students with disabilities who require accommodations (academic and/or auxiliary aids or services) for this course must contact the Student Accessibility Resource Center, Room 1074, Downing Student Union. The SARC telephone number is (270) 745-5004 (TDD: 270-745-3030). Please do not request accommodations directly from the instructor without a letter of accommodation from the Student Accessibility Resource Center.

A tool called ALLY has been enabled within our course site which means that you will have access to different formats of course files such as HTML, readable PDF, electronic braille, ePub, and audio (mp3). Please review the [ALLY for Students in Blackboard Learn video](#) to learn how to access these alternative formats.

Academic Integrity Policy

Please review the statements regarding academic integrity and disciplinary action for any violations.

The pressures of assignments and academic responsibilities do not excuse students from doing their own work. To use the work of another in any form without acknowledging that one is doing so is dishonest. To call the work of another one's one is theft, if done without the other person's consent, and with that person's consent is lying. Students should avoid such forms of academic dishonesty as the follow:

PLAGARISM: Morally and legally, a writer's words and ideas are her/his personal property. To copy or paraphrase a writer's words or to use her/his ideas without giving credit to her/him is dishonest and illegal. It is also dishonest to buy or accept another's work and present as one's own.

CHEATING: Stealing examinations or receiving stolen examinations, giving or receiving information relevant to the content of examinations, and using unauthorized books, notes or papers during examinations are dishonest acts.

FORGERY: It is dishonest to sign another's name to examinations or other academic papers.

Disciplinary Procedures for Violations of Academic Integrity

Any student violating the standards of academic integrity and adversely affecting the worth and conduct of a course or courses of study may be penalized by the faculty. Original jurisdiction falls to the faculty member responsible for the course in which the infraction occurred. Individual faculty who have original jurisdiction in a case involving student violation of standards of academic integrity may impose the following sanctions or penalties:

DISCIPLINARY WARNING: A written statement expressing disapproval of conduct to be sent to the Academic Dean.

DISCIPLINARY EVALUATION: A grade reduction on an assignment or examination. Students may also be required to repeat assignments or examinations.

DISMISSAL: Exclusion from a course for a specified period of time. Such action may result in a final grade of "F." Notification is sent to the Academic Dean.

FAILURE: A final grade of "F" for a course. Notification is sent to the Academic Dean.

Instructor's Policy:

Submitting work that is not your own will result in the following penalties:

FIRST OFFENSE: You will receive a zero (0) for that assignment or exam. You are also subject to any penalties imposed by the University.

SECOND OFFENSE: You will receive a failing grade of "F" for the course. You are also subject to any penalties imposed by the University.

Course Expectations

You should expect to spend 8-9 hours per week completing the assignments. Some assignments may take more time; others may take less. Successful completion of this course is directly related to your level of commitment, discipline, motivation, and participation. The course is structured by weeks in a progression format, with week 2 building upon the content from week 1, and so on. If you fall behind, it is nearly impossible to catch up. So, please adhere to the course structure and assignment deadlines.

There are *no required chat sessions*. If you would like to chat in "real-time," please send an email request to schedule a chat session in the "Office Hours" chat room. Please remember that you can also ask questions using e-mail or the discussion board. If you choose to email me, I have a 1-2 business day return policy,

meaning that I will try my best to respond to your question within 1-2 business days. If you have a question that can be posed to the entire class, please feel free to post on the discussion board in the Course Message Board area.

Finally, I hope you enjoy the class. I am here to help you in any way that I can. Please do not hesitate to contact me with any questions or concerns. I look forward to learning with you.

Course Schedule

This assignment section lists each week's lectures/assignments/readings and assignment due dates as well. The course instructor reserves the right to change, modify, or revise the syllabus and reschedule as necessary.

Week	Topics/Assignments
Week 1	Fundamental of Environmental Health
	<i>Blog</i>
Week 2	Genes, Genomics, and Environmental Health
	<i>Paper 1</i>
Week 3	Environmental Psychology
	<i>Quiz 1</i>
Week 4	Climate Change and Health
	<i>Homework 1</i>
Week 5	Air Quality
	<i>Quiz 2</i>
Week 6	Buildings and Health
	<i>Paper 2</i>
Week 7	Environmental Justice & Vulnerable Populations
Week 8	Food and Environmental Health
	<i>Homework 2</i>
Week 9	Water Quality – Supplies and Diseases
	<i>Quiz 3</i>
Week 10	Waste Characteristics and Handling
Week 11	Vermin, Arthropods, and Public
	<i>Quiz 4</i>
Week 12	Occupational Health/Agricultural Health
	<i>Final Paper</i>
Week 13	Injury and Violence Prevention
	<i>Quiz 5</i>
Week 14	Risk Communication
Week 15	<i>Homework 3</i>
	<i>Student Presentations</i>
Week 16	<i>Student Presentations</i>