

SPRING 2018

Environmental Health

ENVR 600-01W, ENVR 600-971 (3 credit hrs)

Instructor Info Courtney Woods, Ph.D. Clinical Asst. Prof., Dept. of Environmental Sciences & Engineering
166B Rosenau Hall courtney.woods@unc.edu (919) 962-4660

TAs Zahra Al Hamdani zhamdani@live.unc.edu Andy Koltun akoltun@live.unc.edu Ghanja O'Flaherty ghanja@live.unc.edu

Office Hours Office hours are by appointment only

Text Primary readings will be assigned from *Our Global Environment* by Anne Nadakavukaren, 7th Edition, Waveland Press, Inc. 2011. A hardcopy of the text may be obtained from the UNC Student Stores. The e-book is available through [VitalSource](#). Add'l readings or videos will be posted on Sakai.

Course Description This course surveys local and global environmental health issues. Students will utilize selected readings and media to characterize the impact of environmental agents on human health, the environmental consequences of anthropogenic activities, and the interdependency between humans and the natural environment. The course is targeted to graduate students in public health and upper level undergraduates who are interested in pursuing graduate education or research in public health.

All students who are enrolled must have frequent access to a computer or notepad with a microphone and a reliable internet connect to download materials, watch videos and to complete assignments.

Course Objectives This course is designed to expose students to current practices used to assess human health risks and strategies for mitigating and managing environmental hazards. Students will examine domestic and global environmental issues and learn how science and policy influence health and environmental outcomes. Finally, students will begin to develop some skills necessary for conducting research in public health.

Key ASPPH Competencies covered in this course	Example Topics	Lessons
Recognize environmental factors including biological, physical and chemical factors that affect the health of a community.	fate and transport; pesticides and metals toxicity	1 - 14
Understand the patterns of disease and injury in human populations and apply to the control of health problems.	Foodborne illnesses, cryptosporidium outbreak	6,11
Apply constructs of behavioral, social and cultural theories related to individual and population health and health disparities over the life course.	indoor air pollution, lead poisoning	6, 7
Gather, process, and present information to different audiences in-person, through information technologies, or through media channels.	risk communication, public health advisories	7,10,11
Demonstrate the ability to interact with both diverse individuals and communities to produce or impact an intended public health outcome.	Environmental justice	9-12
Incorporate public health biology – the biological and molecular context of public health – into public health practice.	Epigenetics, toxicology, susceptible populations	3,4
Demonstrate ethical choices, values and professional practices implicit in public health decisions while considering the effect of choices on community stewardship, equity, social justice and accountability.	climate change, population control	8,13
Demonstrate ability to plan for the design, development, implementation, and evaluation of strategies to improve individual and community health.	Risk management, health /envr. impact assessments	4,7
Recognize system level properties that result from dynamic interactions among human and social systems and how they affect the relationships among individuals, groups, organizations, communities, and environments.	Population dynamics	1,2,8,13

Grading Scheme: Online Sessions (6) & Discussion Forum (6) 20%
 Writing Assignment 15%
 Group Project 15%
 Exams (4) 50%

Grading Scale: 95-100 H/ A 93-94 H/A-
 90-92 P/ B+ 85-89 P/ B
 80-84 P/ B- 77-79 L/C+
 74-76 L/C 70-73 L/C-
 69 and below F

Course Schedule

Lesson	Lesson Period	Topic	Activities/Assignments Due
0	Jan 10 – Jan 14	Course Overview and Introductions	<ul style="list-style-type: none"> • Introductions • Lesson 0 Quiz (bonus pts)
1	Jan 14 – Jan 21	Population Dynamics (Chapter 2)	• <i>Online Discussion Session</i>
2	Jan 21 – Jan 28	Impacts of Growth on Ecosystems (Chapter 5)	• Voicethread
3	Jan 28 – Feb 4	Environmental Disease (Chapter 6)	• <i>Online Discussion Session</i>
4	Feb 4 – Feb 11	Toxic Substances & Risk Assessment (Chapter 7)	• Lesson 4 Discussion Forum
5	Feb 11 – Feb 18	Pests and Pesticides (Chapter 8)	<ul style="list-style-type: none"> • <i>Online Discussion Session</i> • Exam 1 on Lessons 1-4 * Due by 2/18 by 11:59pm;
6	Feb 18 – Feb 25	Food Quality (Chapter 9)	• Lesson 6 Discussion Forum
7	Feb 25 – Mar 4	Radiation & Risk Management (Chapter 10)	• <i>Online Discussion Session</i>
8	Mar 4– Mar 9	The Atmosphere & Climate (Chapter 11)	<ul style="list-style-type: none"> • Lesson 8 Discussion Forum (optional) • Writing Assignment *Due by 3/9 by 4:59 pm
	Mar 9 – Mar 19	Spring Break	
9	Mar 18 – Mar 25	Air Pollution (Chapter 13)	<ul style="list-style-type: none"> • <i>Online Discussion Session</i> • Exam 2 on Lessons 5-8 *Due by 3/25 by 11:59 pm
10	Mar 25 – Apr 2	Water Resources (Chapter 15) Easter Break	• Lesson 10 Discussion Forum
11	Apr 1 – Apr 8	Water Pollution (Chapter 16)	• <i>Online Discussion Session</i>
12	Apr 8 – Apr 15	Solid and Hazardous Waste (Chapter 17)	<ul style="list-style-type: none"> • Lesson 12 Discussion Forum • Exam 3 on Lesson 9-11 *Due 4/15 by 11:59pm
13	Apr 15 – Apr 22	Population Control & Food Security (Chapter 3 &4)	• Lesson 13 Discussion Forum
14	Apr 22 – Apr 27	Towards a Healthy and Sustainable Future (Ch. 12)	• Online Group Presentations April 24, 25 & 26

Apr 27 – Apr 30	Course Reflections and Study Period	• Voicethread (optional)
May 1 – May 3	Final exam period for this course	• Exam 4 on Lessons 12-14 Due by 5/3 @ 11:59 pm

Course Structure & Logistics

Course Content This course is organized into 14 distinct lessons. The content for each lesson (excluding the textbook chapter) can be accessed on the ENVR 600 course site in Sakai under the “Lessons” tab. Each lesson is comprised of annotated/narrated slides, journal articles, videos, and web links. These materials will be labeled as required, optional or as reference material. **You should plan to commit 9 -12 hrs a week** to reviewing the lesson materials, attending online discussions, writing in the discussion forum and/or completing lesson assignments. This is based on the idea of 1 hr of “in-class time” per credit hour plus 2-3 hours of work outside of class per credit hour.

Opening Dates and Deadlines You will have 1 week to complete each lesson. Unless otherwise noted, each lesson will open on Sunday morning and end on the following Sunday at 11:59 pm. You will still have access to materials from the previous lesson after the lesson period ends. Due to the fast pace of the course, only one lesson will be opened at a time. Students who are interested in moving along more quickly can do so by reading ahead in the textbook. Please refer to the course schedule in this syllabus frequently throughout the semester so that you are aware of the deadline for upcoming assignments.

Completing the Lessons and Evaluating Your Performance I encourage you to use the lesson overview slides as a way to help you navigate the lessons and prioritize the material as you are completing the lessons. You will have several opportunities to assess your performance in the course. Below is a breakdown of how your performance will be formally evaluated for your course grade.

Participation in Discussion Forums and Synchronous Discussions (480 pts) Each student will be assigned to a peer group comprised of approximately 12-16 students. It is within these peer groups that students will participate in synchronous online discussions sessions (6), asynchronous discussion forums (5) and Voicethread (1 graded). The discussion forum topics will be posted in Sakai for each lesson. For the discussion forum and Voicethread, unless otherwise noted, your original posts should be submitted by 11:59pm on Friday of the lesson period, and you should return any time before the end of the lesson period to comment on your peers’ posts. Both your original post and comments will be considered in the grading. You may earn up to 40 points each for active participation in the discussion forum and voicethread, for a total of 240 points.

The synchronous online discussion sessions will be facilitated by me and/or your teaching assistant. Students are expected to attend at least 1 session every other week, which can be accessed via the Blackboard Collaborate web-conferencing application in Sakai. These sessions will occur on Tuesdays, Wednesdays and Thursdays between the hours of 4:00 – 8:30pm EST, and each session will last for no more than 1 hr. During the session, we will engage in Q&A, large group discussion and/or break-out discussions related to the lesson topic. In the Lesson 0 quiz, after you indicate your evening availability, you will be assigned to a peer group and informed of your online session time. You are encouraged to attend your group’s session, but in the event that you have a conflict for any given week, you have the option to join another group’s session. Contact your TA as soon as you become aware of a schedule

conflict so that they can arrange to add you to a different session. Students can earn up to 40 points for active participation in these sessions, for a total of 240 points.

Writing Assignment and Group Project (720 pts) Students will complete 1 writing assignment (3-4 pages in length) and 1 group project, each worth 360 points. The writing assignment instructions and grading rubric will be posted at least 2-3 weeks before the due date, and the group project instructions and rubric will be posted after the mid-term. The group presentations will be delivered online via BlackBoard Collaborate. However, groups should feel free to meet face-to-face prior to the presentations and may also choose to give their online presentation from the same physical location.

Exams (1200 pts) Four exams will be offered and will comprise up to 1200 points of your course grade. Students are allowed to use their textbooks, lessons materials on Sakai, course notes and other online resources; however, students are not allowed to share any information about the exam with other students and are not allowed to work together on the exam. You will have several days to complete the exam (as indicated on the course schedule). Make-up exams are provided only in instances of medical or family emergency, and excuses presented on the final day of the exam period may not be accepted.

Missing an Assignment or Discussion Please send a message to me and your TA as soon as you realize that you have a conflict with any of the dates listed that may prevent you from submitting an assignment on time. Unless a valid medical or family emergency is provided, late exams will not be accepted. Late assignments submitted without sufficiently notifying the instructor prior to submission will incur point deductions. Again, please periodically check the course schedule above syllabus and the calendar on Sakai for assignment deadlines.

Our Online Learning Community Active participation in this online class is important to creating an enriching learning community for yourself and your peers. Each student has a unique perspective to share, and it is the diversity of experiences that will make for rich discussions and exchanges during the course. This course will review topics that many students in the past have written and spoken about very passionately. Very often students' viewpoints conflict, so I ask that you always write or speak respectfully to fellow classmates. You can respectfully disagree with a peer without being offensive.

Honor Code Your work on assignments and examinations is governed by The University of North Carolina Honor Code (<http://honor.unc.edu>). The Honor Code states "It shall be the responsibility of every student at The University of North Carolina at Chapel Hill to obey and to support the enforcement of the Honor Code, which prohibits lying, cheating or stealing when these actions involve academic processes or University, student, or academic personnel acting in an official capacity." You must affirm the honor code pledge for exams and other graded assignments. Instructors are required to report apparent violations to the Student Attorney General. In the past Honor Code violations have resulted in students in online course being dismissed from UNC.

Need Help? You can email us at any time with questions. If something is unclear about an assignment, please make sure that you have read all of the instructions first and have exhausted all resources that you are aware of before email us. You will usually get a response the same day or within 24 hours during the week and within 2448 hrs on the weekend. If your question is urgent, you should send your question through Sakai using the Messages feature. Send your email to all instructors (choose "Instructor Role" in the "To:" field of the message), to increase your chances of receiving a speedy response. Follow the exact instructions below whenever you need to contact us with any questions or issues. This will ensure a prompt reply and help us manage issues.

Technical Issues For issues with your computer, Sakai or access to external sites, please post your issue on the "Houston, we have a Problem" discussion forum. Your peers may be having a similar problem and have identified a solution. The TAs and I will also be monitoring this discussion forum, so you should receive a timely response

from us or your peers. In your message, please be as detailed as possible in your description of the technical issue, including exactly where and when the issue occurred and the exact action you were taking. Provide the text of any error message. A description of your computer set-up, including the browser and browser version you were using, your operating system and type of internet connection, is also very helpful.

The professor reserves the right to make changes to the syllabus, including assignment due dates and exam dates, when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.