

Course Syllabus

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Course Syllabus

Department of Environmental and Occupational Health Sciences

School of Public Health, University of Washington

ENVH 111

Exploring Environmental Health Connections

Winter 2019

3 credit hours

Course Description

This course serves as a portal through which students can learn about the complex and multi-disciplinary field of Environmental Health Sciences. The natural environment presents a rich variety of hazards to human health: chemical, physical and biological. To these, our species has added its own assortment of hazards; for example, synthetic pesticides, industrial pollution and toxic waste. Environmental Health Sciences is the study of the health consequences of human-environment interaction. It is an applied science, with an emphasis on prevention or intervention to eliminate or reduce human health risks.

The course will focus on major environmental health hazards and controversies, raising issues of science and policy through lectures and discussions. The course is structured in modules, with each module devoted to particular environmental health issues. Tuesday and Thursday class sessions will be lecture/class discussion format. Friday class sessions will be class discussions of controversial issues in Environmental Health Sciences

Learning Objectives

At the end of this course, students will be able to:

1. Identify major current and historic environmental health hazards
2. Describe the various approaches to identifying and studying these hazards
3. Describe the various exposure pathways and routes of human exposure to environmental hazards
4. Describe the various approaches to link environmental exposures to human health effects
5. Describe the major agencies, programs, and organizations involved in environmental and occupational health protection.
6. Describe the major public health policies that have been established to protect humans from exposure to environmental and occupational hazards.

Disability Notice

Access and Accommodations: Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu (<mailto:uwdrs@uw.edu>) or disability.uw.edu.

[\(http://depts.washington.edu/uwdrs/\)](http://depts.washington.edu/uwdrs/) DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

Academic Integrity Statement

Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity.

The UW School of Public Health (SPH) is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120).

We expect you to know and follow the university's policies on cheating and plagiarism, and the [SPH Academic Integrity Policy](http://sph.washington.edu/students/academicintegrity/).

Any suspected cases of academic misconduct will be handled according to University of Washington regulations. For more information, see the [University of Washington Community Standards and Student Conduct website](http://www.washington.edu/cssc/).

For this class, students must read the SPH Academic Integrity Policy and indicate that they have read the policy during the first week of class. Instructions for accessing the SPH Academic Integrity Policy are located on the Modules page of the class website.

Class Structure

The course structure is outlined below. All class lectures will be recorded using Panopto. Recordings of the lectures can be accessed through the class website (see Panopto Recordings on the left side-bar).

Week 1: Introduction to Environmental Health and Course Requirements

Week 2: Chemical Hazards and Human Health Risks

Week 3: Chemical Hazards and Case Study #1 (Mercury and Public Health)

Week 4: Chemical Hazards and Case Study #1 (Mercury and Public Health)

Week 5: Balancing Chemical and Biological Hazards and Case Study #2 (DDT/Malaria)

Week 6: Balancing Chemical and Biological Hazards and Case Study #2 (DDT/Malaria)

Week 7: Biological Hazards and Exam #1 (Take-Home)

Week 8: Physical Hazards and Case Study #3 (Cell Phones and Cancer)

Week 9: Physical Hazards and Case Study #3 (Cell Phones and Cancer)

Week 10: Global Climate Change and Screen Time

Finals Week: Exam #2 (Take-Home)

Graded Assignments

During the Tuesday and Thursday sessions, students will respond to questions in-class using Poll Everywhere (10%). Questions will be from the assigned news articles. Some questions will be multiple choice and students will be asked to choose the correct answer. Other questions will be open ended for discussion (no correct answer). If you are in class and answer the questions correctly, you will receive full credit. If you answer the questions incorrectly, you will receive half the credit. For questions without a correct answer, all students answering the question in class will receive full credit. If you are not in class to participate, you will not receive credit. Students will need to register their email and mobile phone number in order for their class responses to be recorded via Poll Everywhere. Instructions on registering your Poll Everywhere account can be found on the Modules page of the class website. Please contact TAs with questions concerning Poll Everywhere.

During the Friday sessions, students will participate in group discussions (10%). (Students who are absent on Friday's without prior approval will not receive credit)

On Fridays during the 1st week of our Case Studies (see below), students will work in groups to discuss the EH issues related to the case study topic. Each student in the group is expected to participate in the discussions. Students who do not participate will not be given credit, even if they are present.

During week 2 of the Case Studies, students will continue to work in their groups to develop a presentation on the case study topic assigned to their group. Each student in the group is expected to participate in planning the presentation and is expected to participate at some time during the presentation and question and answer session on Friday of the 2nd week of the Case Study. Students who do not participate will not be given credit, even if they are present.

Case Study Reports (30%)

As mentioned above, there will be 3 case studies, so 3 Case Study reports.

Case study #1: Mercury Exposure and Public Health

Case study #2: DDT and Malaria

Case study #3: Cell Phones and Brain Cancer

Summary of Requirements for Case Studies

- Sign up for group to read one of two opposing commentaries (A or B) on Case Study Topic
- Read chosen commentary and be ready to discuss it with your group on 1st Friday of Case Study
- After your group has been assigned an Environmental Health (EH) issue discussed in the commentaries during 1st Friday session, search PubMed and select a scientific research article from a peer reviewed journal that provides data regarding the EH issue
- Submit your selected peer reviewed journal article for approval by following Monday
- Read your approved article and discuss the article with your group during week 2 of the case study and work with your group to prepare 10 minute presentation of the data from the research articles
- On 2nd Friday of the Case Study, each group will give a 10 minute presentation (with visual aids) discussing the research articles that they have read that provide data regarding the EH issue discussed in the commentaries. There will also be a question and answer session.
- Summarize your research article for your 2-page Case Study Report and submit Case Study Report via website on following Monday

Further instructions for the Case Study Reports are provided on the Modules page of the class website

Exams (50%)

There will be two take-home exams during the quarter. The first exam will cover material from the first 5 weeks of class. The second exam will cover material from weeks 6-10 of class. Each exam is worth 25% of your grade, so 50% total.

Grading

The total number of points awarded for each of the assignment types will be divided by the total number of points available to calculate a final % score for each assignment type. These % scores will then be weighed according to the percentages listed below to calculate a final % score for the class. This final % score will then be translated into your GPA score using the table below.

- Exam #1 25%
- Exam #2 25%
- Reports (3) 30%
- In-class Participation 10% (Tues & Thurs, Poll Everywhere)
- In Class Discussions 10% (Fri, Case Studies)

Translating your Total Percent Scores to GPA Scores















<u>GPA</u>	<u>Minimum % Correct</u>	<u>GPA</u>	<u>Minimum % Correct</u>
4.0	97	2.3	78
3.9	96	2.2	77














3.8	95	2.1	76
3.7	94	2	75
3.6	93	1.9	74
3.5	92	1.8	73
3.4	90	1.7	72
3.3	89	1.6	70
3.2	88	1.5	69
3.1	87	1.4	68
3	86	1.3	67
2.9	85	1.2	66
2.8	84	1.1	65
2.7	83	1	64
2.6	82	0.9	63
2.5	80	0.8	62
2.4	79	0.7	60
		0.0	<60













Course Summary:














Date







Details

Date	Details	
Thu Jan 10, 2019	 1/10 Read -Course Syllabus (https://canvas.uw.edu/courses/1255702/assignments/4492330)	due by 10:30am
	 1/10 Read -Grading Policies (https://canvas.uw.edu/courses/1255702/assignments/4492331)	due by 10:30am
	 1/10 Read -Instructions for Poll Everywhere and Lecture Recordings (Panopto) (https://canvas.uw.edu/courses/1255702/assignments/4492332)	due by 10:30am
Fri Jan 11, 2019	 1/10 Read and Respond -SPH Academic Integrity Statement (https://canvas.uw.edu/courses/1255702/assignments/4492334)	due by 10:30am
	 1/11 Read -General Instructions for Case Studies (https://canvas.uw.edu/courses/1255702/assignments/4492282)	due by 10:30am
	 1/11 Read -Instructions for Searching for Scientific Articles Using PubMed (https://canvas.uw.edu/courses/1255702/assignments/4492333)	due by 10:30am
Tue Jan 15, 2019	 1/11 First day to Sign up for Friday (1/18) Discussions on Environmental Epidemiology Articles (Deadline 1/15, 8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492329)	due by 8am
	 1/15 Last day to Sign up for Friday (1/18) Discussions on Environmental Epidemiology Articles (Deadline today, 8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492295)	due by 8am
Thu Jan 17, 2019	 1/17 Reading for Today -"Banned in Europe, Safe in the US" (https://canvas.uw.edu/courses/1255702/assignments/4623407)	due by 10:30am
Fri Jan 18, 2019	 1/18 Discussion of Environmental Epidemiology Articles (https://canvas.uw.edu/courses/1255702/assignments/4492299)	due by 10:30am
Tue Jan 22, 2019	 1/18 First Day to Sign Up for Case Study #1 Commentaries (Deadline 1/22, 8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492300)	due by 8am
	 1/22 Last Day to Sign Up for Case Study #1 Commentaries (8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492301)	due by 8am
	 1/22 Reading for Today -"EPA committed to regulating mercury 17 years ago. Now it's having second thoughts" (https://canvas.uw.edu/courses/1255702/assignments/4623414)	due by 10:30am
Thu Jan 24, 2019	 1/24 Reading for Today -"Flint's lead-poisoned water had a 'horrifyingly large' effect on fetal deaths, study finds" (https://canvas.uw.edu/courses/1255702/assignments/4492279)	due by 10:30am

Date	Details	
Fri Jan 25, 2019	 1/25 Discussion of Commentaries for Case Study #1 (https://canvas.uw.edu/courses/1255702/assignments/4492280)	due by 10:30am
Mon Jan 28, 2019	 1/25 First Day to Submit PDF of Chosen Research Article for Case Study #1 (Deadline 1/28, 1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492281)	due by 1pm
	 1/28 Last Day to Submit PDF of Chosen Research Article for Case Study #1 (1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492283)	due by 1pm
Tue Jan 29, 2019	 1/29 Reading for Today -"The federal government backtracks on mercury-emissions rules" (https://canvas.uw.edu/courses/1255702/assignments/4583180)	due by 10:30am
Thu Jan 31, 2019	 1/31 Reading for Today -"The Role of Defeat Devices in Environmental Protection: Beyond The VW Scandal" (https://canvas.uw.edu/courses/1255702/assignments/4492284)	due by 10:30am
Fri Feb 1, 2019	 2/1 Instructions for Submitting Case Study #1 Group Presentation (https://canvas.uw.edu/courses/1255702/assignments/4626637)	due by 9am
	 2/1 Instructions for Case Study #1 Group Presentations (https://canvas.uw.edu/courses/1255702/assignments/4492286)	due by 10:30am
Mon Feb 4, 2019	 2/4 Instructions for Submitting Report for Case Study #1 (Deadline 1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492287)	due by 1pm
	 2/4 Instructions for Writing Report for Case Study #1 (Deadline 1PM) (https://canvas.uw.edu/courses/1255702/assignments/4492288)	due by 1pm
Tue Feb 5, 2019	 2/1 First Day to Sign Up for Case Study #2 Commentaries (Deadline 2/5, 8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492285)	due by 8am
	 2/5 Last Day to Sign Up for Case Study #2 Commentaries (8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492289)	due by 8am
Thu Feb 7, 2019	 2/7 Reading for Today -Case Study #2: "WHO Backs Use of DDT Against Malaria" (https://canvas.uw.edu/courses/1255702/assignments/4492290)	due by 10:30am
Fri Feb 8, 2019	 2/8 Discussion of Commentaries for Case Study #2 (https://canvas.uw.edu/courses/1255702/assignments/4492293)	due by 10:30am

Date	Details	
Mon Feb 11, 2019	 2/11 Last Day to Submit PDF of Chosen Research Article for Case Study #2 (1PM) (https://canvas.uw.edu/courses/1255702/assignments/4492294)	due by 1pm
	 2/8 First Day to Submit PDF for Chosen Research Article for Case Study #2 (Deadline 2/11, 1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492292)	due by 1pm
Tue Feb 12, 2019	 2/12 Reading for Today -Documents That Changed the World: John Snow's Cholera Map, 1853 (https://canvas.uw.edu/courses/1255702/assignments/4492297)	due by 10:30am
Thu Feb 14, 2019	 2/14 Reading for Today -"A CEO just got 28 years in prison after 9 people died from his salmonella-tainted peanuts" (https://canvas.uw.edu/courses/1255702/assignments/4492310)	due by 10:30am
Fri Feb 15, 2019	 2/15 Instructions for Submitting Case Study #2 Group Presentation (https://canvas.uw.edu/courses/1255702/assignments/4640735)	due by 9am
	 2/15 Instructions for Case Study #2 Group Presentations (https://canvas.uw.edu/courses/1255702/assignments/4640741)	due by 10:30am
Mon Feb 18, 2019	 2/18 Instructions for Submitting Report for Case Study #2 (Deadline 1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492317)	due by 1pm
	 2/18 Instructions for Writing Report for Case Study #2 (Deadline 1PM) (https://canvas.uw.edu/courses/1255702/assignments/4640827)	due by 1pm
Tue Feb 19, 2019	 2/19 Guest Speaker, Liz Dykstra: Reading for Today -How a wildlife biologist became a plague-chaser in the American Southwest (https://canvas.uw.edu/courses/1255702/assignments/4492321)	due by 10:30am
Thu Feb 21, 2019	 2/21 Guest Speaker, Rebekah Petroff: Readings for Today - Guinea Worm (https://canvas.uw.edu/courses/1255702/assignments/4492303)	due by 10:30am
Fri Feb 22, 2019	 2/15 Exam #1 Posted Today (https://canvas.uw.edu/courses/1255702/assignments/4492314)	due by 9am
	 2/22 Submit Exam #1 Here by 9 AM Today (Discussion in class today) (https://canvas.uw.edu/courses/1255702/assignments/4492322)	due by 9am

Date	Details	
Tue Feb 26, 2019	 2/22 First Day to Sign Up for Case Study #3 Commentaries (Deadline 2/26, 8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492319)	due by 8am
	 2/26 Last Day to Sign Up for Case Study #3 Commentaries (8 AM) (https://canvas.uw.edu/courses/1255702/assignments/4492304)	due by 8am
	 2/26 Reading for Today "Statement from Jeffrey Shuren, M.D., J.D., Director of the FDA's Center for Devices and Radiological Health on the National Toxicology Program's report on radiofrequency energy exposure" (https://canvas.uw.edu/courses/1255702/assignments/4492320)	due by 10:30am
Thu Feb 28, 2019	 2/28 Guest Speaker, Trevor Peckham: Reading for Today: "Accidents at Amazon: workers left to suffer after warehouse injuries" (https://canvas.uw.edu/courses/1255702/assignments/4492305)	due by 10:30am
Fri Mar 1, 2019	 3/1 Discussion of Commentaries for Case Study #3 (https://canvas.uw.edu/courses/1255702/assignments/4492306)	due by 10:30am
Mon Mar 4, 2019	 3/1 First Day to Submit PDF for Chosen Research Article for Case Study #3 (Deadline 3/4, 1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492307)	due by 1pm
	 3/4 Last Day to Submit PDF for Chosen Research Article for Case Study #3 (1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492309)	due by 1pm
Tue Mar 5, 2019	 3/5 Reading for Today -"Breathing Death" (https://canvas.uw.edu/courses/1255702/assignments/4492312)	due by 10:30am
Thu Mar 7, 2019	 3/7 Reading for Today -" A Strategy for Saving Lives: The National Radon Action Plan" (https://canvas.uw.edu/courses/1255702/assignments/4492313)	due by 10:30am
Fri Mar 8, 2019	 3/8 Instructions for Submitting Case Study #3 Group Presentation (https://canvas.uw.edu/courses/1255702/assignments/4640754)	due by 9am
	 3/8 Instructions for Case Study #3 Group Presentations (https://canvas.uw.edu/courses/1255702/assignments/4640750)	due by 10:30am
Mon Mar 11, 2019	 3/11 Instructions for Submitting Report for Case Study #3 (Deadline 1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492323)	due by 1pm
	 3/11 Instructions for Writing Report for Case Study #3 (Deadline 1PM) (https://canvas.uw.edu/courses/1255702/assignments/4640841)	due by 1pm

Date	Details	
Tue Mar 12, 2019	 3/12 Reading for Today "This smoke is not for the birds — but Mishka the asthmatic otter is doing fine" (https://canvas.uw.edu/courses/1255702/assignments/4492291)	due by 10:30am
Thu Mar 14, 2019	 3/14 Guest Speaker, Tania Bush Isaksen: Reading - "If you live in Florida, doctors say climate change is already affecting your health" (https://canvas.uw.edu/courses/1255702/assignments/4492324)	due by 10:30am
Fri Mar 15, 2019	 3/14 Reading -"New Screen Time Rules for Kids, by Doctors" (https://canvas.uw.edu/courses/1255702/assignments/4492325)	due by 10:30am
Fri Mar 15, 2019	 3/15 Class review and discussion of Take-Home Exam #2 (Due 3/21, 1 PM) (https://canvas.uw.edu/courses/1255702/assignments/4492326)	due by 10:30am
Thu Mar 21, 2019	 3/15 EXAM #2 Posted Today (https://canvas.uw.edu/courses/1255702/assignments/4492327)	due by 1pm
Thu Mar 21, 2019	 3/21 Submit Exam #2 Here by 1 PM (https://canvas.uw.edu/courses/1255702/assignments/4492328)	due by 1pm