

ENVH 510
GLOBAL ENVIRONMENTAL HEALTH
Winter quarter, 2018

SYLLABUS

WHERE AND WHEN:

Monday and Wednesday, 12:30 – 2:20

Mondays in K-069 (lecture hall)

Wednesdays in the [South Campus Center Active Learning Classroom](#)

INSTRUCTOR:

Howard Frumkin, M.D., Dr.P.H.

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Office hours:

TEACHING ASSISTANT:

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Office hours:

COURSE WEB SITE:

<https://canvas.uw.edu/courses/XXXXXX>

TEXT:

Frumkin, *Environmental Health: From Global to Local (3^d Edition)*. Jossey-Bass, 2016.

COURSE LEARNING OBJECTIVES:

ENVH 510 is a survey course designed to introduce you to basic concepts of ecology and environmental sciences, to the methods used to study the links between the environment and health, to the health impacts of various environmental processes and exposures, and to the environmental public health approach to both controlling risks and promoting health. The course will take a global approach, and we'll pay particular attention to environmental health issues in low- and middle-income countries. For instance, when we consider indoor air quality, we'll focus on solid fuel burning in homes, and when we consider cities, we'll focus on the cities of low- and middle-income countries. Upon completion of the course, students will be able to:

1. Identify the principal environmental exposures that threaten or promote human health
2. Describe the sources of these exposures and their pathway to humans
3. Describe how "upstream" processes (urbanization, housing, transportation, energy use, agriculture, industrial and work organization) may either threaten or promote health
4. Describe what kinds of evidence are used to assess the health impacts of these exposures, including toxicology, epidemiology, and health impact assessment
5. Describe the known and suspected health consequences of these exposures
6. Describe the major prevention and health promotion approaches used by environmental public health practitioners

7. Know the major legal and policy approaches used to control environmental health hazards
8. Know how to assess the seriousness of an environmental health problem through information gathered from appropriate sources, so as to clearly define the problem and possible solutions

In addition, important learning goals of the course include:

1. Collaborative problem-solving
2. Rapid retrieval and synthesis of information
3. Constructing sound, evidence-based public health positions
4. Clear written communication

THE STRUCTURE OF THE COURSE

During the quarter, we'll use a variety of teaching techniques. On Mondays, we'll meet in K069, a large lecture hall in the Health Sciences Center, and class sessions will consist of relatively traditional lectures and discussion. On Wednesdays, we'll meet in an active learning classroom in South Campus Center, where we'll be able to use more participatory methods. You should attend every class session, and participate actively in group discussion. Bring your name tent, so we and your classmates can learn your name. And bring your laptop! As you work the exercises on Wednesdays, you'll want to do research, and you'll want to be writing your answers.

Don't have a laptop? No problem! [Classroom Support Services](#) in the Health Science Building's Rotunda has a limited number of [laptops](#) available for free rental. Be sure to review the [policies](#), and note that you will need to [place your online request](#) the day before you want to pick up the equipment. Don't forget to take your Husky card to the Classroom Support Services office in the Health Science's Rotunda to pick up your requested laptop.

Classroom Support Services: <http://www.css.washington.edu/>
Equipment Descriptions: <http://www.css.washington.edu/Equipmentdescriptions#>
Student Technology Fee Policies: <http://www.css.washington.edu/STFPolicies>
Equipment Request: <https://www.css.washington.edu/stfequip/>

WRITTEN ASSIGNMENTS:

Whatever you do in public health, evidence-based thinking and clear, concise writing are essential. One of the goals of ENVH 510 is to help you develop and improve these skills. The assignments are brief—a total of four “mini-essays,” each no longer than two double-spaced pages, and a total of six full assignments, each no longer than three pages (not including references). You'll have the chance to choose these from a larger number of assignments over the course of the quarter, to give you the chance to pace yourself, and to accommodate other demands on your time. Imagine you work at WHO and are writing a report for your busy Director, or that you work at a state health department and are writing a report for the busy Commissioner. You'll want to be crisp, to the point, and evidence-based.

If you need some help with your writing, there's plenty of it available. UW offers a number of Writing Centers for exactly that purpose. You can find them listed at

<http://depts.washington.edu/writeuw/centers.html>. A good choice of a starting point is the Odegaard Writing and Research Center, located (no surprise!) in the Odegaard Library, and online at <http://www.lib.washington.edu/ougl/owrc>. You might decide to initiate a consultation there, or I might advise you to do so if your written work suggests that it would benefit you.

You'll submit your written work on our class Canvas site. More on this during the first week of class.

The written submissions will be graded on the following criteria:

1. Your writing should be well structured, clear, and logical. Identify the point you are making or the conclusion you are reaching, and work toward it, supporting it with evidence.
2. Your answer should be independent, thoughtful, and creative. Don't just parrot somebody else's conclusions.
3. Your answer should be well written and professionally presented. In your public health career, you will need to prepare written reports and will be judged on the quality of your presentation. This is a good time to set high standards and reach them. Incorrect grammar, typographical errors, and sloppy formatting will lower your grade.
4. Base your arguments on solid evidence. At a minimum, you should read and draw on the assigned readings that correspond to your topic. Evidence of research beyond the assigned readings signals an inquisitive mind; this will strengthen your essay and boost your grade. In doing so, be careful with web sites. Use Google cautiously and critically. Avoid "health advice column" web sites, blogs, and other sites whose evidence base is unclear. Instead, learn to find and rely on information from recognized health agencies, peer-reviewed journals, and similar sources. Similarly, eschew secondary sources. If you come across a newspaper account of a scientific journal article, retrieve, read, and cite the article itself, not the newspaper story. Finally, do not plagiarize; be sure to cite your sources faithfully, using standard formatting. If you need help, see <http://guides.lib.washington.edu/citations>, or consult Miriam.
5. Submit your work on time. The exercise following a Monday class is due at the beginning of class on Wednesday, and the exercise following a Wednesday class is due at the beginning of class on Monday. If you have a true emergency such as a hospitalization or a death in the family, I'll work with you.
6. Brevity is a virtue. Stick to the page limit, double-space, and avoid the temptation to squeeze in extra words using tiny little fonts.
7. You'll discuss your ideas with classmates during class, but your writing should be your own. Plagiarism is cheating, this is unfair and demoralizing to your classmates. For a reminder of UW's policy, see <http://sph.washington.edu/gateway/plagiarism.asp>.

DISCUSSIONS:

We'll maintain discussion on our Canvas site, and you're encouraged to participate. In these discussions we'll consider not only class material, but current events relevant to Environmental and Occupational Health.

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 Miriam or 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 health condition or 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 or disability.uw.edu. 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 UW to create inclusive and accessible learning environments consistent with federal and state law.

ACADEMIC INTEGRITY

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

The UW School of Public Health 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). You should know and follow the university's policies on cheating and plagiarism, and the SPH Academic Integrity Policy. 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 (<https://www.washington.edu/cssc/>).

CLASSROOM CLIMATE:

The UW School of Public Health seeks to ensure that all students are fully included in each course. We strive to overcome systemic racism by creating an environment that reflects community, mutual caring, and respect, while we actively work to combat all forms of social oppression. This is a work in progress, as transformation is rarely a fully-completed project. In EOH 510, we will look for opportunities to improve our performance as we seek to break down institutional racism. This can include course readings, class interactions, faculty performance, and/or the institutional environment. I encourage students to talk with the professor, the TA, and/or the program director if you have concerns about classroom climate. DCinfo@uw.edu is a resource for students with classroom climate concerns.

We have the privilege of learning together and we have a responsibility to engage in dialogue in a way that supports learning for all of us. Here are some practices we as learning community members can strive to use in our learning process:

- My own viewpoint is important—share it. It will enrich others.
- My students' and colleagues' viewpoints are important—listen to them. Do not judge them.

- Extend the same listening respect to others I would wish them to extend to me. We all have room to grow to become better non-judgmental listeners.
- Recognize that I might miss things others see and see things others might miss.
- Raise my views in such a way that I encourage others to raise theirs.
- Inquire into others' views while inviting them to inquire into mine.
- Ask questions when I don't understand something.
- Surface my feelings in such a way that it makes it easier for others to surface theirs.
- Test my assumptions about how and why people say or do things.
- Challenge what was said or done, rather than make assumptions about the individual.
- Beware of either-or thinking.
- Be willing to take risks in moving outside my comfort zones.
- Affirm others.

EVALUATION:

Your evaluation will be based on the following:

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| Four written mini-assignments (8 points each) | 32 points |
| Five written full assignments (12 points each) | 60 points |
| Participation in class and on-line discussions | 8 points |
| Total | 100 points |

EOH 510 / Winter Quarter, 2018 / Class Schedule

| | Day, Date | Topic | Reading | Class format | Class learning activity |
|----|------------------|--|---|-----------------------------|---|
| 1 | Wed 3 Jan | Intro / Ecology / Planetary Health | Chaps 1, 2 | Lecture/ discussion | |
| 2 | Mon 8 Jan | Energy and climate change | Chaps 12, 14 | Lecture/ discussion | Op-ed or letter to RWJF on CC (MINI) |
| 3 | Wed 10 Jan | Environmental epidemiology | Chap 4 | Minilecture, class exercise | Epi class exercise write-up (FULL) |
| | Mon 15 Jan | MLK Day | No class | | |
| 4 | Wed 17 Jan | Toxicology | Chap 6 | Minilecture, class exercise | Tox class exercise write-up (FULL) |
| 5 | Mon 22 Jan | Environmental justice | Chap 11 | Lecture/ discussion | Air pollution assignment (MINI) |
| | | Air pollution | Chap 13 | | |
| 6 | Wed 24 Jan | Indoor air | Apte K, Salvi S. Household air pollution and its effects on health. <i>F1000 Res</i> 2016;5. Gordon SB, et al. Respiratory risks from household air pollution in low and middle income countries. <i>Lancet Respir Med.</i> 2014;2(10):823-860. | Minilecture, class exercise | Indoor air class exercise write-up (FULL) |
| 7 | Mon 29 Jan | Water and sanitation | 16 | Lecture/ discussion | WASH assignment (MINI) |
| 8 | Wed 1 Feb | Water and sanitation | 16 | Class exercise | WASH class exercise write-up (FULL) |
| 9 | Mon 5 Feb | Food | 19 | Lecture/ discussion | Food assignment (MINI) |
| 10 | Wed 7 Feb | Food | 19 | Minilecture, class exercise | Food class exercise write-up (FULL) |
| 11 | Mon 12 Feb | Community design; health impact assessment | 15 WHO. <i>Health as the Pulse of the New Urban Agenda</i> , 2016.. | Lecture/ discussion | Assignment on Health in the New Urban Agenda (MINI) |
| 12 | Wed 14 Feb | Nature contact | 25 | Minilecture, class exercise | Nature class exercise write-up (FULL) |
| | Mon 19 Feb | President's Day | No class | | |
| 13 | Wed 21 | Buildings | 20 | Minilecture, class exercise | Building class exercise write-up |

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|----|----------------|-----------------------|--------|-----------------------------|--|
| | Feb | | | | |
| 14 | Mon 26 Feb | Workplace | 21 | Lecture/ discussion | Occ health assignment (MINI) |
| 15 | Wed 28 Feb | Injuries | 23 | Minilecture, class exercise | Injury class exercise write-up (FULL) |
| 16 | Mon 5 March | Disasters | 24 | Lecture/ discussion | Disaster assignment (MINI) |
| 17 | Wed 7 March | Risk Communication | 27, 28 | Minilecture, class exercise | Risk communication class exercise write-up (FULL) |