

Course Syllabus

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ENVH 501 Foundations of Environmental Health Autumn Quarter 2019

Instructor:

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Days/Times and Location: Tuesdays & Thursdays, 8:30-10:20 AM, HSB T360+A (Tuesdays), SCC 301 (Thursdays)

Course Description

This course covers the foundational environmental and occupational public health knowledge domains, provides a comprehensive overview of an environmental and occupational public health framework, and introduces a One Health systems model for assessing and managing environmental health risks on a local and global scale.

Learning Objectives

At the end of this course, the student should be able to:

1. Explain public health history, philosophy, and values with a focus on environmental and occupational public health.
2. Identify core functions and the 10 essential services of environmental public health.
3. List major causes and trends of morbidity and mortality in the US and globally with a focus on the contribution of environmental factors.
4. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, and the hierarchy of controls approach.
5. Explain the critical importance of evidence in advancing environmental and occupational public health knowledge.
6. Explain the effects of environmental factors on individual and population health, including biological, physical, and social factors.

7. Explain the biological and genetic factors that affect population health and susceptibility to adverse health outcomes from environmental exposures.
8. Explain behavioral and psychological factors that affect population health and susceptibility to adverse health outcomes from environmental exposures.
9. Explain how social, political, and economic determinants of health influence vulnerability to environmental exposures, population health, and the role that environmental justice plays in understanding and addressing those vulnerabilities.
10. Explain the effect of globalization and global environmental change on the global burden of disease.
11. Explain an ecological perspective on the connections among human health, animal health, and ecosystem health using the ECOHAB acronym.
12. Explain the process of problem formulation in addressing environmental public health problems.
13. Explain the process of hazard identification as part of risk assessment.
14. Identify the major chemical, physical, and biological agents of concern in environmental public health, and health effects associated with these agents.
15. Describe the processes of dose response assessment, exposure assessment, and risk characterization as part of risk assessment for environmental agents.
16. Discuss the processes of risk communication, risk management, and evaluation as part of the environmental and occupational health framework.
17. Discuss the importance of stakeholder engagement in addressing environmental public health problems.
18. Employ system mapping techniques and a One Health approach to describe a complex system relevant to environmental health.
19. Explain key environmental health aspects of agricultural, manufacturing, energy, and built environment systems.
20. Propose an effective policy to address an environmental health problem and effectively communicate it in a policy brief format.
21. Develop a personal vision and mission statement related to your career in environmental and occupational health.

Classroom Climate

Diverse backgrounds, embodiments, and experiences are essential to the critical thinking endeavor at the heart of university education. Therefore, I expect you to follow the UW Student Conduct Code in your interactions with your colleagues and me in this course by respecting the many social and cultural differences among us, which may include, but are not limited to: age, cultural background, disability, ethnicity, family status, gender identity and presentation, citizenship and immigration status, national origin, race, religious and political beliefs, sex, sexual orientation, socioeconomic status, and veteran status. I will acknowledge from the beginning that all of us, including your instructor, have a lot to learn about combatting racism, sexism, classism, and other forms of discrimination and bias, and that this learning process will continue throughout our careers. Please talk with me right away if you experience disrespect in this class, and I will work to address it in an educational manner. UW students can also report incidents of bias or violations of UW policies for non-discrimination using the Bias Reporting Tool available at: <http://www.washington.edu/bias/> (<http://www.washington.edu/bias/>).

Course Organization

The course is organized in weekly modules on the Modules Page of the Canvas site. After an introductory module, and modules explaining the Environmental and Occupational Health approach to problems, ecosystems and and demographic factors, we will examine a number of major environmental “systems”, including food systems, energy systems, etc. For each system, we will examine representative biological, physical, chemical, and social hazards and human health effects (as well as effects on the health of animal populations and the ecosystem). We will also discuss common mechanisms of exposure, risk and health impact; population vulnerability, including occupational exposures and occupational health vs. community exposures, social determinants of health, inequity; and strategies to control exposure and promote health--favorable change.

Students need to complete assigned preparatory reading, viewing and short tasks before each class session.

Class sessions will be a combination of instructor--led, active lecture format to reinforce the preparatory material and “flipped classroom” approaches requiring students to have already reviewed materials on the Canvas site, including at times prerecorded lectures.

At some class sessions, use of computers, smart phones etc. will not be allowed. Students in general must come to class prepared to answer discussion questions about the assigned material, and also be able to define any of the terms on vocabulary list for that week’s module.

Case Study Sessions: there will be 2 cases: Yakima, and Minamata. Background materials about the cases will be provided.

Concept Mapping: For some problem solving, we will use the technique of concept mapping to explore the relevant systems.

For creating concept maps, I recommend trying the Lucid software program which is available for free as an online version. To get the program, sign up using your .edu address at:

<https://www.lucidchart.com/pages/usecase/education>

(<https://www.lucidchart.com/pages/usecase/education>) (click on “free account” to get started).

Using this program will allow you to create concept maps about particular systems. There will be a number of concept map assignments. For each assignment, please save your concept map as a pdf file and upload it to the Canvas site. During some class discussions, we will review these concept maps to further our understanding both of the system being discussed as well as the systems thinking approaches that are appropriate. The final policy brief will also require creation of a concept map/diagram to help you explain your policy recommendation.

Required Reading and Viewing

Students are required to complete preparatory reading and viewing assignments before each class session. Students need to come to class prepared to discuss in depth the questions on the weekly question list, and be able to define the vocabulary for the module.

A detailed list of assigned reading and viewing materials for each module will be maintained on the Canvas website.

Typical assigned materials include:

- Short video lectures by the instructor or other faculty speakers (approximately 20 minutes) covering learning objectives, key concepts and definitions for the weekly module.
- Required background reading that may include textbook chapters, journal articles, and policy documents.
- List of questions and vocabulary (based on the background reading) relevant to each module for discussion in the class sessions (There is a master list of vocabulary on the Canvas site).
- Additional background materials: not required but available if you are interested in further exploration of particular topics

Textbook: There is no required textbook.

Lucid Software: Highly recommended for the concept mapping. Available for free at

<https://www.lucidchart.com/pages/usecase/education>

(<https://www.lucidchart.com/pages/usecase/education>) (use your @uw.edu address and click on “free account” to get started).

Assignments

Daily Assignments:

- **Reading or viewing background materials and lectures, and list of questions and vocabulary for the module:** To be completed before the first module class session, as described above. This preparation is essential for success in the course.

Concept Maps: There will be two concept mapping assignments. For the graded concept map assignments, students will post a pdf copy on Canvas before class when it is due. Concept mapping is a “systems thinking” exercise to portray ideas about connections between environmental and social causative factors, other influential factors or stakeholder-agents, and impacts on health and well-being. The instructor will provide guidance on concept mapping, including an in class demonstration about how to create a concept map. Students are encouraged to use the free Lucid software to create their maps, although with permission of the instructor they may use other methods. For each graded concept map assignment, I will provide comments through the Canvas site.

Weekly Vocabulary Quizzes: There will be seven short in-class quizzes that will cover the vocabulary and hazard terms in the different modules

Exams: There will be an in-class midterm and final exam. These will be based heavily on the learning objectives outlined in each lecture as well as the terms and definitions presented each week in the recorded lecture.

Group Final Project (Policy Brief supported by a compelling concept map (1): Each student will collaborate once with a group of approximately 3 students over the course of the term to prepare an in-depth systems analysis of an environmental health problem. This project will include completing a concept map to help illustrate the identified problem and proposed solutions. The group will collaborate to produce a 2-3-page executive summary level policy brief document, outlining the problem being addressed and presenting some

policy priorities for addressing the problem. Field visits to sites relevant to the policy brief to gain additional insight are encouraged but not required.

What is a policy brief?

“A policy brief is a concise summary of a particular issue, the policy options to deal with it, and some recommendations on the best option. It is aimed at government policymakers and others who are interested in formulating or influencing policy. Policy briefs can take different formats. A typical format... contain[s] perhaps 700 words. It has an attractive design, and may have one or more photograph[s]”
[source: FAO Food Security Communications Toolkit]

The policy brief for this assignment should be <1000 words, not counting references. Since this is an academic exercise, the policy brief should include line--item reference notations linked to a separate reference list.

Each group will present an oral presentation about the problem, the concept map diagram they have created, and the policy brief during the last week of the class. A written version of the policy brief document as well as the concept map will be due on the same day as the final exam. This write-up must include a description of the roles of each of the group members in creating the document. The write-up should conform to principles of “plain language” as outlined by NIH (see <https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication/plain-language> (<https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication/plain-language>)).

Personal Vision/Mission Statement and Goals: Graduate study is a time of intense and rapid professional and personal individual growth. Having a clear sense of your personal values and goals regarding your study and training in environmental and occupational health will help you be a proactive and effective learner and professional. NIH, NSF, and other agencies that provide funding for graduate training are increasingly requiring students and their mentors to complete “individual development plans” that ideally are based on the student’s personal values and sense of mission. In this course, students will work on drafting their personal mission statement related to environmental and occupational health, as well as a set of goals for their graduate study based on their mission statement. The mission statement can be based on the student’s personal statement but can also be completely different! The key idea is to encourage student self-reflection and assist students with goal-setting for their education and training and beyond.

The process of creating a mission statement will begin on the first day of class, and students will do a short writing exercise and use it to introduce themselves to other students. Students are also encouraged to discuss this assignment with potential or actual mentors or advisors. A draft of the mission statement and goals will be due halfway through the course, and a revised statement due at the end of the course. The finished assignment for this class will include:

- 2-3 short statements about your career and personal vision
- 4-5 short statements describing your career and personal mission
- A set of goals (with timelines) for your graduate study at DEOHS
- At least 3 academic goals
- At least 3 career goals
- At least 3 personal goals

A rubric for the mission statement and goals will be on the Canvas site.

Participation

Preparation before class, participation in class discussion, and group collaboration in the group project are essential for successful instruction and learning in this course. While you will not be explicitly graded on attendance, participation in class discussions is an important part of your learning.

Communication

One goal of this course is to provide experience with a variety of communication formats, and to cultivate skills in “plain language” communication. See NIH guide to plain language <https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication/plain-language/training>. (<https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication/plain-language/training>)

Students usually have a wide range of comfort levels regarding speaking up in class- but this course really encourages students to actively participate in group discussions as well as class-wide discussions.

Use of graphics for communication is also important and will be emphasized in the concept map and policy brief assignments.

Use of Computers or Other Electronic Devices in Class

In sessions where we are doing active discussion, **students are expected not to use electronic devices and computers**, unless the instructor specifically requests that a student use an electronic device for a particular task (such as to display a concept map), or to accommodate an individual student’s disability needs. The rationale for this is to encourage adequate pre-class preparation (including written notes) and in-class interactive discussion and communication. Copies of any slides will always be available on the Canvas site. During the in-class concept mapping sessions, computers may be used for specific activities such as displaying work on a concept map.

Grading

Course grades are determined on the basis of the following weighting:

Personal mission statement	5%
Concept map (2X5%)	10%
Vocabulary/Hazard Quizzes: 7X5%	35%
Midterm Exam	15%
Final Exam	20%
Group concept map diagram and policy brief (group grade)	15%
TOTAL	100%

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.

Religious Accommodations

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/) (<https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/>). Accommodations must be requested within the first two weeks of this course using [the Religious Accommodations Request form](https://registrar.washington.edu/students/religious-accommodations-request/) (<https://registrar.washington.edu/students/religious-accommodations-request/>).

Academic Integrity

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](https://sph.washington.edu/students/academic-integrity-policy/) (<https://sph.washington.edu/students/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.

Safety

Call SafeCampus at 206-685-7233 anytime – no matter where you work or study – to anonymously discuss safety and well-being concerns for yourself or others. SafeCampus's team of caring professionals will provide individualized support, while discussing short- and long-term solutions and connecting you with additional resources when requested.

Session-by-Session Schedule

Session #	Topics Covered	Learning Outcomes Addressed	Assignments/Assessments Due
Week 1: Introduction			
1	Overview of course rationale and structure, introductions, personal mission statement and goals	21	<u>Readings</u> : Creating and individual plan, Basic principles of mission statements, Online mission statement builder
Week 2: The OEH Approach			
2	The EOH Approach: Risk paradigm, One Health paradigm, core functions of environmental public health, hierarchy of controls, history of environmental public health	1, 2, 4, 12-17	<u>Readings</u> : Effects of environment, Improving public health services, Module 2 vocabulary list
3	Environmental Justice, Systems tools for complex systems: concept mapping / Discussion of Yakima Valley ground water CASE as a complex system Hazards: Nitrates, Harmful algae blooms, Ecoli/other enterics, parasites, Stress	8, 9,14,18	<u>Readings</u> : EJ Concept mapping, Yakima Valley groundwater, Recent EPA ruling <u>Activity</u> : In-class concept mapping exercise <u>Quiz</u> : Module 2 Vocabulary
Week 3: Manufacturing Systems			
4	History of manufacturing/OSHA/NIOSH, etc. occupational and environmental hazards in manufacturing Hazards: Beryllium, chromium, nickel, manganese, cobalt, PAHs	1, 14, 19	Reading: Industrial ecology paper, IARC monograph aluminum <u>Due</u> : <u>Concept maps/Lucid charts of Yakima</u>
5	History of manufacturing, cont., introduction to policy briefs Hazards: noise, ergonomic MSDs	10, 11	Reading: Alcoa Story (slides) Finnish occupational diseases paper <u>Quiz</u> : in class
Week 4: Built Environment and Transportation Systems			
6		1, 14, 19	

	Built environment I Hazards: Mold , TB, Legionella, Warfarin, lead, VOCs, lyme disease, radon, rodents, Heat		<u>Readings:</u> Jackson AJPH: Health and the built environment, <u>Module vocabulary list</u>
7	Built environment II: Transportation and Urbanization Hazards: carbon monoxide, carbon dioxide, NOx	19, 20	<u>Readings:</u> Urbanization and health in china paper Urban form, transportation and air pollution paper <u>Quiz:</u> Module 4

Week 5: Environmental/Occupational Health Aspects of Animal Agriculture

8	Animal agriculture: environmental and occupational health aspects Hazards: zoonotic bacteria, influenza, other viruses, animal venoms/toxins, endotoxin, Hydrogen sulfide, ammonia	1, 14,19	<u>Viewing:</u> Environmental audit video, swine video, poultry video <u>Reading:</u> Davis paper on poultry microbiome Module 5 vocabulary list
9	Class group work: pro/con animal agriculture		<u>Reading:</u> Chapter from Omnivore's Dilemma Godfray paper on food systems FAO Report (Exec summary) <u>Quiz:</u> Module 5

Week 6: Environmental/Occupational Health Aspects of Plant Agriculture

10	Plant agriculture: lecture and discussion, urban agriculture Hazards: Pesticides/Insecticides: DDT, OPs, pyrethrins, lead arsenate, neonicotinoids Herbicides/Fungicides: Atrazine, glyphosate, 24D, 245T, paraquat, azoles, Dioxins, aflatoxin, BPA endocrine disruptors, plant toxins (nicotine).	1, 14,19	<u>Readings:</u> Tilman paper on global food demand, PARnters in Ag health paper on hazards Module 6 vocabulary list <u>Due:</u> Draft mission statement
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11	In-class project: carbon footprint / diet calculator /Policy brief discussion, Midterm review		<u>Readings: Policy brief toolkit, policy brief paper</u> <u>Resources: online calculator</u> <u>Quiz: Module 6 vocabulary</u>
Week 7: The EOH Approach, continued			
12	Midterm exam	All to date	
13	Minamata Case Example: Toxicology approach (Kavanagh) Hazard : organic mercury	12-17	<u>Reading and viewing: Minamata video</u> <u>Minamata epidemiology report</u>
Week 8: Energy Systems			
14	Basics of energy systems, Hill criteria Hazards: fracking, silica	1, 5, 14,19	<u>Readings: Energy and health chapter, Energy efficiency paper</u> Module 8 vocabulary list
15	Fracking example, Focus on particular hazards in different types of energy-group discussion Hazards: PCBs, Sulfur dioxide, methane, radiation	19	<u>EHP fracking study (Rabinowitz et al),</u> <u>Fedak Hill criteria paper,</u> <u>Quiz: Module 8 vocabulary</u> Concept map #2 due
Week 9: Global Demographics and Global Burden of Disease			
16	<u>GBD and environmental factors (Odell guest)</u>	3, 6, 7	<u>Readings:</u> IHME risk factor GBD report, WHO report, Thornton Livestock production
17	Vulnerability and Future projections (Hess or Morin) Hazards: vectors, heat, biowarfare agents,	10,11	<u>Readings: Planetary Health Report, Climate change and health report</u> WA State Vulnerability paper (Unfair share)

			Quiz: Module 9 vocabulary
Week 10: Future Trends and Policies			
18	How to make policy changes: local and bigger level. (Ottien guest) Lecture and in class discussion	10	Readings: Readings: Planetary one health paper Module vocabulary list Due: Group policy briefs and concept maps/ diagram drafts due
	Thanksgiving Holiday - No Class		
Week 11: Group Policy Briefs			
19	Policy brief presentations	20	Mission statements due
20	Policy brief presentations	20	
Finals Week			
	Final Exam (Date/Time TBD)	All	Group project materials due

Course Summary:

Date	Details	
Thu Jan 11, 2018	 Introduction to Concept Mapping workshop, Week 2 (https://canvas.uw.edu/courses/1320214/assignments/4931735)	due by 8:30am
Thu Jan 18, 2018	 Draft Concept Map #1 Assignment, Week 3 (https://canvas.uw.edu/courses/1320214/assignments/4931718)	due by 8:30am
Thu Jan 25, 2018	 Final Concept Map #1 Assignment , Week 4 (https://canvas.uw.edu/courses/1320214/assignments/4931723)	due by 8:30am
Thu Feb 1, 2018	 Draft Concept Map #2 Assignment & Begin Group Concept Maps, Week 5 (https://canvas.uw.edu/courses/1320214/assignments/4931719)	due by 8:30am
Thu Feb 8, 2018	 Final Concept Map #2 Assignment, Week 6 (https://canvas.uw.edu/courses/1320214/assignments/4931724)	due by 8:30am
Thu Feb 22, 2018	 Draft Concept Map #3 Assignment , Week 8 (https://canvas.uw.edu/courses/1320214/assignments/4931720)	due by 8:30am

Date	Details	
Thu Mar 1, 2018	 Final Concept Map #3 Assignment, Week 9 (https://canvas.uw.edu/courses/1320214/assignments/4931725)	due by 8:30am
Mon Oct 15, 2018	 Preparation for Session 6 (Module 4, Demographics) (https://canvas.uw.edu/courses/1320214/assignments/4931752)	due by 3:00pm
Wed Oct 17, 2018	 Preparation for Session 7 (Module 4, Demographics) (https://canvas.uw.edu/courses/1320214/assignments/4931753)	due by 3:00pm
Wed Oct 24, 2018	 Graded Food Chain Concept Map (https://canvas.uw.edu/courses/1320214/assignments/4931730)	due by 3:00pm
Wed Nov 7, 2018	 Preparation for Session 13 (Module 2, EOH Approach, cont.) (https://canvas.uw.edu/courses/1320214/assignments/4931742)	due by 3:00pm
	 In-Class Lucid Chart Concept Map 3 - Yakima Intervention (https://canvas.uw.edu/courses/1320214/assignments/4931734)	due by 4:50pm
Thu Sep 26, 2019	 Materials for Session 1 (Module 1, Introduction) (https://canvas.uw.edu/courses/1320214/assignments/4931736)	due by 3pm
Tue Oct 1, 2019	 Preparation for Session 2 (Module 2, EOH Approach) (https://canvas.uw.edu/courses/1320214/assignments/4931748)	due by 3pm
	 In-Class Lucid Chart Concept Map 1 - Yakima Basic (https://canvas.uw.edu/courses/1320214/assignments/4931732)	due by 11am
Thu Oct 3, 2019	 Preparation for Session 3 (Module 2, EOH Approach) (https://canvas.uw.edu/courses/1320214/assignments/4931749)	due by 3pm
	 Quiz 1 (https://canvas.uw.edu/courses/1320214/assignments/5033581)	due by 11:59pm
	 Graded Concept Map 1 - Yakima Ground water and Health (https://canvas.uw.edu/courses/1320214/assignments/4931733)	due by 8:30am
Tue Oct 8, 2019	 Preparation for Session 4 (Module 3, Manufacturing) (https://canvas.uw.edu/courses/1320214/assignments/4931744)	due by 8:30am
	 Additional Materials for Session 3 (https://canvas.uw.edu/courses/1320214/assignments/4931717)	due by 8:30am
Thu Oct 10, 2019	 Preparation for Session 5 (Module 3, Built Environment and Transportation) (https://canvas.uw.edu/courses/1320214/assignments/4931751)	due by 8:30am
	 Preparation for Session 5: (Module 3 Manufacturing) (https://canvas.uw.edu/courses/1320214/assignments/4988800)	due by 8:30am
	 Quiz 2 (https://canvas.uw.edu/courses/1320214/assignments/5033585)	due by 11:59pm

Date	Details	
Tue Oct 15, 2019	 Preparation for Session 6 (Module 4, Built Environment and Transportation) (https://canvas.uw.edu/courses/1320214/assignments/4931750)	due by 8:30am
Thu Oct 17, 2019	 Preparation for Session 7 (Module 4, Built Environment & Transportation) (https://canvas.uw.edu/courses/1320214/assignments/4931747)	due by 8:30am
	 Quiz 3 (https://canvas.uw.edu/courses/1320214/assignments/5050186)	due by 11:59pm
Tue Oct 22, 2019	 Preparation for Session 8 (Module 5, Animal Food Production) (https://canvas.uw.edu/courses/1320214/assignments/4931754)	due by 3pm
Thu Oct 24, 2019	 Preparation for Session 9: (Module 5 Animal Agriculture) (https://canvas.uw.edu/courses/1320214/assignments/4988979)	due by 8:30am
	 Quiz 4 (https://canvas.uw.edu/courses/1320214/assignments/5050187)	due by 11:59pm
Tue Oct 29, 2019	 DRAFT Personal Mission Statement (due 10/29) (https://canvas.uw.edu/courses/1320214/assignments/4931722)	due by 8:30am
	 Preparation for Session 10 (Module 6, Plant Food Production) (https://canvas.uw.edu/courses/1320214/assignments/4931741)	due by 8:30am
Thu Oct 31, 2019	 Preparation for Session 11 (Module 6 Plant Agriculture) (https://canvas.uw.edu/courses/1320214/assignments/4989062)	due by 10:20am
	 Meal Analysis Exercise (https://canvas.uw.edu/courses/1320214/assignments/4931737)	due by 11am
	 Quiz 5 (https://canvas.uw.edu/courses/1320214/assignments/5050188)	due by 11:59pm
Tue Nov 5, 2019	 MIDTERM Exam (in-class) (https://canvas.uw.edu/courses/1320214/assignments/4931738)	due by 10:30am
Thu Nov 7, 2019	 Preparation for Session 13 (Module7 EOH approach-) MINAMATA (https://canvas.uw.edu/courses/1320214/assignments/4931745)	due by 8:30am
Tue Nov 12, 2019	 Preparation for Session 14 (Module 8, Energy) (https://canvas.uw.edu/courses/1320214/assignments/4931743)	due by 8:30am
Thu Nov 14, 2019	 Preparation for Session 15 (Module 8 Energy Systems) (https://canvas.uw.edu/courses/1320214/assignments/4989339)	due by 8:30am
	 Quiz 6 (https://canvas.uw.edu/courses/1320214/assignments/5050189)	due by 11:59pm

Date	Details	
Tue Nov 19, 2019	 Graded Concept Map #2 (https://canvas.uw.edu/courses/1320214/assignments/4931729)	due by 8:30am
	 Preparation for Session 16: (Module 9 Global Demographics and GBD) (https://canvas.uw.edu/courses/1320214/assignments/4989388)	due by 8:30am
Thu Nov 21, 2019	 DRAFT Group Causal Diagram and Policy Brief (due 11/21) (https://canvas.uw.edu/courses/1320214/assignments/4931721)	due by 8:30am
	 Preparation for Session 17 (Module 9 Demographics and Burden of Disease) (https://canvas.uw.edu/courses/1320214/assignments/4989591)	due by 8:30am
	 Quiz 7 (https://canvas.uw.edu/courses/1320214/assignments/5050190)	due by 11:59pm
Tue Nov 26, 2019	 Preparation for Session 18 (Module 10: Future Trends and Policies) (https://canvas.uw.edu/courses/1320214/assignments/4989663)	due by 8:30am
	 Preparation for Session 5 (Module 3, Built Environment & Transportation) (https://canvas.uw.edu/courses/1320214/assignments/4931746)	due by 3pm
Tue Dec 3, 2019	 Final Group Presentations (Session 1, Tuesday, 12/3) (https://canvas.uw.edu/courses/1320214/assignments/4931727)	due by 8:30am
	 Personal Mission Statement FINAL Draft (due 12/3) (https://canvas.uw.edu/courses/1320214/assignments/4931740)	due by 3pm
Thu Dec 5, 2019	 Final Group Presentations (Session 2, Wednesday, 12/5) (https://canvas.uw.edu/courses/1320214/assignments/4931728)	due by 3pm
Fri Dec 13, 2019	 FINAL Exam (in-class) (https://canvas.uw.edu/courses/1320214/assignments/4931726)	due by 2:30pm
	 Group Causal Diagram and Policy Brief (due on day of final) (https://canvas.uw.edu/courses/1320214/assignments/4931731)	due by 2:30pm
 Final Project: Policy Support Voting Survey (https://canvas.uw.edu/courses/1320214/assignments/4931716)		
 Overall Participation (not counting meal analysis) (https://canvas.uw.edu/courses/1320214/assignments/4931739)		
 Roll Call Attendance (https://canvas.uw.edu/courses/1320214/assignments/4931755)		