

# Course Syllabus

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## **General Information**

### *Instructor*

Jeremy Hess, MD, MPH

Associate Professor, Emergency Medicine, Environmental & Occupational Health Sciences, and Global Health

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Meetings by appointment

### *Teaching Assistants*

Frank Ryou, PhD student, Environmental and Occupational Health Sciences

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Meetings by appointment

Daira Melendez, MPH student, Environmental and Occupational Health Sciences

Email: [dairabel@uw.edu](mailto:dairabel@uw.edu) (<mailto:dairabel@uw.edu>) (<mailto:tpeckham@uw.edu>)

Meetings by appointment

Schedule: T Th 10:35-12:30

Class begins promptly at 10:35. This allows an extra five minutes to accommodate students coming from a preceding class elsewhere on campus. The final exam will be administered on Monday, 6/10, 10:30-12:20.

Class location: Health Sciences Building room T439

[Class website](#)

## **Course Description**

This course provides a graduate-level overview of the multidisciplinary field of environmental and occupational health sciences as well as food and nutrition for public health. The four-credit course covers a broad spectrum of environmental hazards and contexts, their interactions with human health and well-being, and their relevance to the effective assurance and promotion of public health. Consistent with its focus on food and nutrition, the course places special emphasis on issues related to food systems and health. We will consider environmental, occupational, and nutritional problems in different settings (e.g. the workplace, community, and home) and at varying scales (local, regional, and global), and use case examples from high-, middle-, and low-income countries. The course stresses examining environmental health concerns from a systems perspective and in the context of social, economic, and other determinants of health, and emphasizes systems science methods and policy solutions to environmental health concerns.

This course satisfies the MPH core requirement in environmental health sciences. This course should be useful for public health and health care professionals, environmental scientists and engineers, public administrators, or any student who wants a broad overview of relationships between the environment and human health in a wide range of contexts.

Pre-requisites: None, though the course is limited to graduate students.

## Learning objectives

**Integrative competencies:** At the end of this course, the student should be able to: \*

1. **Foundations:** Describe and discuss foundational concepts and strategies of environmental and occupational health sciences, including nutrition, and draw generalizable conclusions about how they apply in different situations and at various scales.
2. **Global Health:** Contrast environmental health problems including concerns related to food systems and food security between higher-income and lower-income populations; and discuss impacts of global social, economic and environmental trends on environmental public health.
3. **Contexts and Systems:** Apply foundational concepts and strategies to environmental health problems from a systems perspective; characterize broader environmental and social contexts and complex system dynamics; and assess cumulative influences on health including nutrition, wellbeing, and equity.
4. **Policy:** Develop evidence-based and sustainable strategies to improve health, wellbeing and equity related to an environmental, occupational, or nutritional public health problem.
5. **Communication:** Communicate information in plain language to a target audience about environmental health risks, influential factors, and prevention strategies.
6. **Professionalism:** Perform effectively in groups and on small teams; promote collegiality, inclusion, trust, and ethical principles in learning experiences.

\*For simplicity, the term “environment” here encompasses work environments.

**Supportive learning objectives:** At the end of the course, the student should be able to:

### 1. Foundations

1. Hazards: Specify major (representative) chemical, microbial, and physical health hazards found in air, water, food, soil, and waste; and describe their principal effects on health.

2. Cycles: Characterize nutrient and other major cycles relevant to public health and describe these cycles in terms of sustainability and system dynamics.
3. Nutrition: Describe fundamental principles of nutrition and malnutrition; describe principles of metabolism and energy balance; characterize the role and function of micronutrients; and discuss important linkages between nutrition and health.
4. Exposures: Describe basic strategies for identifying, evaluating, preventing, and controlling exposures to health and safety hazards in environmental and occupational settings.
5. Health risks: Describe basic strategies to assess health risk and identify acceptable levels of risk associated with environmental hazards.
6. Vulnerability: Discuss the importance of factors that contribute to individual and population vulnerability, such as biological susceptibility, existing health or social disparities, and cumulative burden of health impacts.
7. Values: Discuss the importance of equity, justice and sustainability in addressing problems related to the environment and health.

## 2. Global Health

1. Contrasts: Compare and contrast environmental health problems and applicable policies between high-, middle-, and low-income countries, populations, and settings.
2. Trends: Describe and discuss potential impacts of demographic change, economic development, energy demand, human-modified environments, global-scale pollution, and global environmental change on human health, food security, water security, and equity.

## 3. Contexts and Systems

1. Environmental context: Identify and discuss how the current or changing status of natural ecosystems and human-altered environments might influence health, well-being, and equity.
2. Systems: Identify and describe the scope, scale, and dynamics of major systems relevant to environmental health; describe impacts of these systems and their dynamics on health.
  1. Social context: Identify and discuss how socioeconomic, political, cultural, behavioral and perceptual factors might interact with environmental factors and influence health risks.
3. Systems thinking: Examine relationships between system structure and dynamics, environmental hazards, social contexts, and vulnerability on health, wellbeing, and equity; and discern how complex system dynamics complicate management of associated risks.
4. Food systems: Describe major food production and distribution systems with attention to scope and scale; and discuss the relationship between food environments, food security, and food sovereignty.

## 4. Policy

1. Stakeholders: Identify stakeholders; characterize assets, power and inequities, and anticipate needs, concerns, and risk perceptions.
2. Opportunities: Identify opportunities for and barriers to sustainable changes that promote health, well-being, and equity.
3. Alternatives: Formulate evidence-based, context-appropriate, and sustainable alternatives to address the problem and enhance health, well being, and equity.

## Course schedule

The course is organized in modules. Each module examines 1-2 major environmental media or domains, with the focus on selected case situations that bring in information from more- and less-developed regions. Each module examines representative hazards and human health effects; nutrition, food systems, and food security; mechanisms of exposure, risk and health impact; influences of the broader social and environmental context; population vulnerability and inequity; and general strategies to control exposure and promote health- and equity-favorable change. Most modules introduce a major foundational environmental health concept or strategy and illustrate application within the module theme. *Preparation for each class session is essential.* The instructor and guest lecturers will assume students have completed the assigned readings or viewings. Class sessions will often include short mini-lectures and will also include active, student-engaged approaches to: clarify confusing or problematic points; reinforce key facts, concepts and strategies; apply those concepts and strategies to the selected cases and other examples; and explore the complexity of addressing environmental public health problems in the real world.

<u>Class</u>	<u>Date</u>	<u>Topic</u>	<u>Speaker(s)</u>	<u>Assignments Due</u> (all submitted via Canvas)
1	4/2	Course Introduction and Ecology	Jeremy Hess	
2	4/4	Systems and Planetary Health	Jeremy Hess	SGE1
3	4/9	Exposure Science	Mike Yost	
4	4/11	One Health and Environmental Epidemiology	Peter Rabinowitz	SGE2
5	4/16	Air Pollution Epidemiology	Joel Kaufman	SAE1
6	4/18	Climate Change	Jeremy Hess	SGE3
7	4/23	Water and Sanitation	Scott Meschke	
8	4/25	Ecology of Microbial Hazards	Scott Meschke	SGE4
9	4/30	Disasters	Nicole Errett	
10	5/2	Midterm		
11	5/7	Nutritional Science	Michelle Averill	
12	5/9	Food Systems	Jennifer Otten	SGE5
13	5/14	Plastics and Related Toxicology	Jeremy Hess	
14	5/16	Pesticide & Occupational Exposure	Mike Rosenfeld	SGE6
15	5/21	Nature Contact	Kathryn Wolf	PB
16	5/23	Built Environment	Andrew Dannenberg	SGE7
17	5/28	Occupational Health	Noah Seixas	SAE2

18	5/30	Food Safety and Hygiene	Jennifer Otten	SGE8
19	6/4	Environmental Justice	Panel TBD	
20	6/6	Future of environmental health	Jeremy Hess	
	6/10	Final exam	@ TBD, 10:30am	

### **Required reading and viewing**

**Reading and viewing materials** will be on the course Canvas site, accessible through module links.

Readings will be a mixture of textbook chapters, primary literature, popular texts, online material, videos, and other media. You will be able to access most of the readings through the Canvas site.

The text, Frumkin's *Environmental Health: From Global to Local (3<sup>d</sup> Edition)*. Jossey-Bass, 2016, cannot be directly posted on the Canvas site. As a UW student, you have access to the text free of charge as an [e-book](https://ebookcentral-proquest-com.offcampus.lib.washington.edu/lib/washington/detail.action?docID=4405576) (<https://ebookcentral-proquest-com.offcampus.lib.washington.edu/lib/washington/detail.action?docID=4405576>) through the UW libraries. If you prefer a physical copy of the text, it is available for purchase or rent from Amazon as well as other retailers.

**Recommended:** The assigned policy brief should be written in “plain language.” The Canvas site will include resources. Students are encouraged to complete the NIH online plain-language training (8 modules).

### **Assignments**

The general categories of assignments are summarized below and then each category is elaborated on further after the summary.

#### *Preparation – before class session*

- Reading and viewing
- Questions and prompts
- Food-handler online training

#### *Participation in class*

- PollEverywhere responses
- Quick-writes
- Question and oral answers
- Discussions

#### *Exams*

- Midterm
- Final

#### *Exercises*

- Systems exercises

- Policy brief, references, per review

**Preparation:** Preparation for each class session is essential and will be assumed. Students should complete preparatory reading and viewing assignments before each class session. Preparation will facilitate engagement in class with the speakers and in-class small group work. In addition, preparation will be assessed through the **Washington state food handler training**. As part of a preparation for the nutrition and food systems aspect of the course, students will also complete the [online Washington state food handler training](http://www.foodworkercard.wa.gov) (<http://www.foodworkercard.wa.gov>) before Week 8. This takes <1 hour. The training is free, unless you choose to get a food handler card (optional). To demonstrate completion, simply print the "completion screen", right after completion of the exam, as a pdf or screenshot of the completion page, and upload the file to the course assignment page. If you have an active permit, you are not required to take the training but need to upload the copy of the permit (via scanning or taking picture) to the course assignment page.

**Participation:** We try to make class engaging and worth coming to, and it is important for you to be present and participate. Participation will be assessed using attendance for the day and in-class small group exercises (SGEs; more below under **Exercises**). Class participation will include PollEverywhere, quick writes, Kahoot quizzes, small-group work, verbal student responses, and in-class SGEs. Students will need electronic devices – laptop computers, tablets, or phones – for most of these modalities.

To limit distractions, students are asked to limit their online activity to what is needed to engage during class.

**Exams:** There is one in-class mid-term and one final, scheduled as noted on the syllabus; each count for 15% of the grade. These exams will be timed, open book, and administered online via Canvas. Exams should be taken in-class if at all possible, though in certain circumstances may be taken out-of-class. If exams are taken out of class, students assume all risks related to technical issues, clarification of exam questions, and any other issues that may arise.

**Exercises:** Students will complete three sets of exercises over the course of the quarter. Each will count for 25% of the grade.

The first set are **small group exercises (SGEs)** done in class. SGEs will take place in the second half of class on Thursdays. Small groups will be formed at the beginning of the quarter and will meet each Thursday to review material and discuss the answers to a set of questions pertaining to recent material. Each student will be required to submit a short written response to the questions by 5PM that day.

The second set are **systems analysis exercises (SAEs)**. The SAEs focus on systems science and analysis of systems relevant to environmental health and food systems. Some systems science material will be covered in the SGEs and some in the SAEs. The two out-of-class SAEs are aimed at developing individual students' abilities at recognizing, describing, and exploring complex systems and their management, particularly in relation to policy development and application. These exercises will be completed individually.

The third exercise is the **policy brief (PB)**. The PB will focus on an environmental health, nutrition, or food systems problem and set of policy options and will be done in self-selected pairs. Each team will have the option of developing either a written or an audio policy brief.

*All exercises must be electronically submitted by 5 PM on the due date without exception.* Students are encouraged early to avoid submission mishaps.

The three sets of exercises are outlined below. Additional details will be available at the time assignments are made.

**Small group exercises (SGEs):** This series of exercises is designed for students to engage with the material presented in recent classes and to explore its application to different contexts, problems, and solution spaces. The SGEs are also designed to promote interaction and team problem solving involving students from different disciplines and with different experiences and perspectives. The SGEs are designed to be discussed in small groups and submitted individually on the same day. Apart from preparation for class, participation class and in the small group discussions, little outside work is expected to satisfactorily complete the SGEs. Additional details will be provided in class.

**Systems analysis exercises (SAEs):** This series of exercises is designed for students to develop and practice skills related to identifying complex systems, communicating about system behavior, using systems thinking to identify potential system management strategies, and using systems science to approach public health problems. Each student will work on his or her own on these exercises. In the first exercise, students will identify and describe several different complex systems relevant to environmental health and nutrition, paying particular attention to their dynamics. In the second exercise, students will practice using standard nomenclature and diagram conventions to describe a pre-selected set of systems. In the third exercise, students will search the literature to identify systems science work and summarize its relevance to a chosen environmental health or nutrition issue. In the fourth exercise, students will apply the skills they have developed regarding systems science to policy analyses. Additional details, including specific dates for assignments, will be provided in class.

**Policy brief with annotated references:** Each student will work in a self-selected student pair to create one written policy brief or audio policy brief podcast. In both cases, students will submit an annotated reference list with their final assignment. The policy brief will focus on an environmental health issue of the students' choice. The topic should be related to a Pacific Northwest case or issue, US federal policy issue, or international policy issue. Topics must be approved by the instructor or a TA. Additional details will be provided during class.

According to the Food and Agricultural Organization, a written 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]. Longer briefs (up to 8 pages, or 3,000 words) and other formats are also possible." [FAO Food Security Communications Toolkit]

Both the written and audio policy brief podcasts should introduce, summarize, and dramatize the issue of concern; present policy management options; and make specific recommendations regarding policy actions. The briefs should be aimed at government policymakers and interested, informed citizens who want to inform policy. Written policy briefs should be  $\leq 1000$  words, not counting references. Audio policy brief podcasts should be less than 10 minutes long. Reference lists should be submitted for both. Written

policy briefs should include in-line reference notations linked to a separate annotated reference list. Annotations should include a brief statement about the cited reference to clarify or support points in the policy brief. Additional information regarding each format will be available with the assignment, as will examples of successful written briefs (no examples of audio policy brief podcasts are available as this is the first year we have explored this format).

**Professionalism, expectations, and shared improvement:** Students, instructors, and teaching assistants are expected to perform collaboratively and effectively in their student pairs and to promote collegiality, integrity, inclusion, trust, respect, and ethical principles in all learning experiences.

Part of this relates to maintaining 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 the University of Washington regulations. For more information, see the University of Washington Community Standards and Student Conduct website (<https://www.washington.edu/cssc/> [\\_ \(https://www.washington.edu/cssc/\)](https://www.washington.edu/cssc/)).

Professionalism also relates to promoting a classroom climate that fosters inclusion and reflects our collective values. 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 ENV H 511, 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 \(mailto:DCinfo@uw.edu\)](mailto: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.

Please talk with me (Jeremy Hess, instructor) right away if I fail to meet these or your expectations, or if you experience or witness disrespect in this class. I will work promptly to address it in a constructive and educational manner, while assuring your privacy. Alternatively, you could communicate your concerns through a course TA, the Graduate Program director (Scott Meschke, [jmeschke@uw.edu](mailto:jmeschke@uw.edu)) or manager (Jon Sharpe, [jsharpe@uw.edu](mailto:jsharpe@uw.edu)) in my department, or your chosen contact person in your department or the Dean's office.

## **Grading**

Weighting of course assignments for overall course grade:

<b>Category</b>	<b>Item</b>	<b>Weight</b>
Preparation		2%
	Food handler training	(2%)
Participation		8%
	Attendance	(8%)
Exercises		60%
	Small group exercises (SGEs)	(25%)
	Systems analysis exercises (SAEs)	(15%)
	Policy analysis with annotated references	(20%)
Exams		30%
	Midterm	(15%)
	Final	(15%)
Total		100%

**Preparation:** Preparation is 2% of the overall grade. Graded preparation tasks are scored simply as completed *on time*, or not.

**Participation:** Participation is assessed via attendance and is 8% of the overall grade. Two missed days of attendance will be allowed without question to account for the occasional illness, scheduling issue, or other concern. If you have an illness or other hardship that requires you to be absent for more than two days please contact the instructor to determine if accommodations are available. Understand that elective commitments that take you away from class more than twice are not considered excusable absences and will instead be reflected in your participation grade.

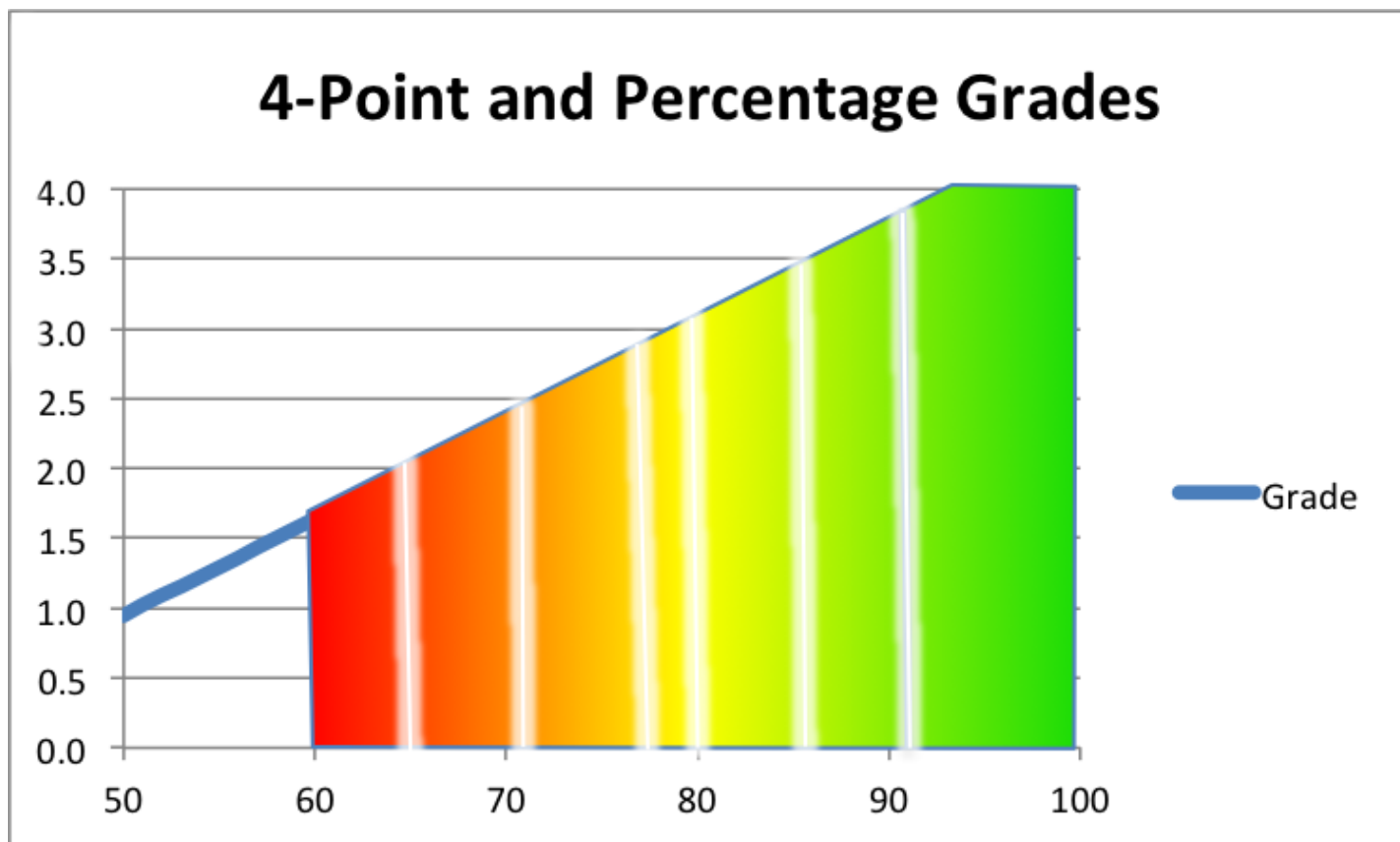
**Exercises:** These are graded using evaluation rubrics based on course learning objectives. The SGEs will be 25% of the grade, the SAEs 15%, and the PB 20%. Rubrics will be shared with students before they begin the assignments. *Credit is reduced for late submissions by 20% of the grade per day (24 hours).*

Exercises may be graded with a percent score or on a 4-point UW grading scale. Grading guidelines are:

- 3.9-4.0 - *Excellent work* for a graduate student. Work at this level is unusually thorough, well-reasoned, sophisticated, well-written, and presented. Work shows an incisive and comprehensive understanding of issues and problems, deep engagement with the material, and innovative application of underlying principles.
- 3.5-3.8 - *Very strong work* that is thorough, well-reasoned, and indicates very strong understanding, reasoning and writing/presentation skills, sophisticated engagement with the material, and unquestionable understanding of issues, principles, and approaches.
- 3.1-3.4 - *Strong work* that is thorough and well-reasoned, indicates strong understanding, reasoning, and writing/presentation skills, clear engagement with the material, and strong understanding of issues, principles, and approaches.
- 2.9-3.0 - *Very good work* that is thorough, well-reasoned, and shows sound to strong understanding, reasoning, and writing/presentation skills, overall substantial engagement with the material, and very good understanding of issues, principles, and approaches, with few if any misunderstandings or errors.
- 2.5-2.8 - *Good work* that is thorough, generally well-reasoned, and shows a good understanding of appropriate approaches to problems and questions. Adequate application of issues and problems with occasionally stronger insights. Minor misunderstandings or errors may be present.
- 2.1-2.4 - *Competent and sound work* that is generally thorough and well-reasoned, and shows sound understanding of appropriate approaches to problems and questions. Shows adequate understanding of issues and problems. Minor misunderstandings or errors are present.
- 1.7-2.0 - *Adequate work* that is moderately thorough and well-reasoned, but understanding of the important issues is not complete. Approaches to address problems and questions are generally adequate. However, the work has some weaknesses or limitations.
- <1.7 - *Unacceptable work* for a graduate student. Work at a high level for an undergraduate is graded in the D range, but otherwise work of this caliber will receive a failing grade.

Letter	Percentage	GPA Range
A	93-100	3.9-4.0
A-	87-92	3.5-3.8
B+	81-86	3.1-3.4
B	78-80	2.9-3.0
B-	72-77	2.5-2.8
C+	66-71	2.1-2.4
C	60-65	1.7-2.0
F	≤59	0

This image illustrates generally how percentages are translated into grades on the UW 4-point scale:



**Exams** are graded on a linear scale. The grading scale ranges from 1.7 to 4.0 on a 4-point scale per UW [graduate school policy \(https://grad.uw.edu/policies-procedures/graduate-school-memoranda/memo-19-grading-system-for-graduate-students/\)](https://grad.uw.edu/policies-procedures/graduate-school-memoranda/memo-19-grading-system-for-graduate-students/). In some instances, numerical grades in percentage form will be assigned; these grades map to the 4-point scale as noted above. The midterm and the final exam will each count for 15% of the grade.

**Extra Credit** is available, for up to 5% of the grade. There are three options for the extra credit; they can be combined up to a total of 5%:

- 1. Site Visit (2.5 points toward final grade):** Visit a site that plays a significant role in environmental health, occupational health & safety, planetary health, nutrition, or food systems, such as a wastewater treatment facility, a landfill, a recycling facility, a power plant, a food processing facility, or a food bank. Ask the instructor or a teaching assistant before visiting a site to make sure that it satisfies the requirements. Note: many facilities near Seattle have limited access, so start on this early. Take a picture of yourself at the site and write a one-page report summarizing why you chose the site, what you learned, and how it relates to the themes you have studied in the class.
- 2. Film Review (2.5 point toward final grade):** Select, watch, and review a film or similar production on a topic of importance to environmental health, occupational health & safety, planetary health, nutrition, or food systems. Ask the instructor or a teaching assistant before selecting something to review. After watching, write a one-page report summarizing why you chose the film, what you learned, and how it relates to the themes you have studied in the class.
- 3. Book Review (5 points toward the final grade):** Select a book focused on the topic of importance to environmental health, occupational health & safety, planetary health, nutrition, or food systems. Ask the





instructor or a teaching assistant before making your selection. After reading the book, write a two-page report summarizing why you chose it, what you learned, how it relates to the themes you have studied in class, whether you would recommend it to your classmates, and why.

















### **Access and accommodations**












Your experience in this class is important to me (Jeremy Hess, instructor). 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, you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu. Qualifying conditions include but are not limited to mental health, attention-related, learning, vision, hearing, physical or health impacts. 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 and DRS. It is policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

## Course Summary:

Date	Details	due by 11:59pm
Tue Apr 2, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679749">Session 1   Tuesday, April 2: Orientation, Introduction, and Ecology and Health</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679749">(https://canvas.uw.edu/courses/1290762/assignments/4679749)</a>	due by 11:59pm
Thu Apr 4, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679750">Session 2   Thursday, April 4: Systems &amp; Planetary Health</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679750">(https://canvas.uw.edu/courses/1290762/assignments/4679750)</a>	due by 11:59pm
	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4768012">Small Group Exercise 1</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4768012">(https://canvas.uw.edu/courses/1290762/assignments/4768012)</a>	due by 11:59pm
Tue Apr 9, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679751">Session 3   Tuesday, April 9: Exposure Science</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679751">(https://canvas.uw.edu/courses/1290762/assignments/4679751)</a>	due by 11:59pm

Date	Details	due by 11:59pm
Thu Apr 11, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679752">Session 4   Thursday, April 11: One Health &amp; Systems</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679752">https://canvas.uw.edu/courses/1290762/assignments/4679752</a>	due by 11:59pm
Thu Apr 11, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679753">Session 5   Tuesday, April 16: Air Pollution Epidemiology</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679753">https://canvas.uw.edu/courses/1290762/assignments/4679753</a>	due by 11:59pm
Thu Apr 11, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4787304">Small Group Exercise 2</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4787304">https://canvas.uw.edu/courses/1290762/assignments/4787304</a>	due by 11:59pm
Tue Apr 16, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679754">Session 6   Thursday, April 18: Climate Change</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679754">https://canvas.uw.edu/courses/1290762/assignments/4679754</a>	due by 11:59pm
Tue Apr 16, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4778930">Systems Analysis Exercise 1 (Due 4/16)</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4778930">https://canvas.uw.edu/courses/1290762/assignments/4778930</a>	due by 11:59pm
Thu Apr 18, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4794173">Small Group Exercise 3</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4794173">https://canvas.uw.edu/courses/1290762/assignments/4794173</a>	due by 11:59pm
Tue Apr 23, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679756">Session 7   Tuesday, April 23: Water and Sanitation</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679756">https://canvas.uw.edu/courses/1290762/assignments/4679756</a>	due by 11:59pm
Thu Apr 25, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679757">Session 8   Thursday, April 25: Ecology of Microbial Hazards</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679757">https://canvas.uw.edu/courses/1290762/assignments/4679757</a>	due by 11:59pm
Thu Apr 25, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4800505">Small Group Exercise 4</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4800505">https://canvas.uw.edu/courses/1290762/assignments/4800505</a>	due by 11:59pm
Tue Apr 30, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679755">Session 9   Tuesday, April 30: Disasters</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679755">https://canvas.uw.edu/courses/1290762/assignments/4679755</a>	due by 11:59pm
Thu May 2, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679760">Session 10   Thursday, May 2: Midterm</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679760">https://canvas.uw.edu/courses/1290762/assignments/4679760</a>	due by 11:59pm
Tue May 7, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679759">Session 11   Tuesday, May 7: Nutritional Science</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679759">https://canvas.uw.edu/courses/1290762/assignments/4679759</a>	due by 11:59pm
Thu May 9, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679761">Session 12   Thursday, May 9: Food Systems</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679761">https://canvas.uw.edu/courses/1290762/assignments/4679761</a>	due by 11:59pm
Tue May 14, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679762">Session 13   Tuesday, May 14: Plastics and Toxicology</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679762">https://canvas.uw.edu/courses/1290762/assignments/4679762</a>	due by 11:59pm
Thu May 16, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679763">Session 14   Thursday, May 16: Pesticide &amp; Occupational Exposure</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679763">https://canvas.uw.edu/courses/1290762/assignments/4679763</a>	due by 11:59pm
Tue May 21, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679764">Session 15   Tuesday, May 21: Nature Contact</a> <a href="https://canvas.uw.edu/courses/1290762/assignments/4679764">https://canvas.uw.edu/courses/1290762/assignments/4679764</a>	due by 11:59pm

Date	Details	due by 11:59pm
Thu May 23, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679765">Session 16   Thursday, May 23: Built Environment (https://canvas.uw.edu/courses/1290762/assignments/4679765)</a>	due by 11:59pm
Tue May 28, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679766">(Need Content) Session 17   Tuesday, May 28: Occupational Health (https://canvas.uw.edu/courses/1290762/assignments/4679766)</a>	due by 11:59pm
Thu May 30, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679767">Session 18   Thursday, May 30: Food Safety and Hygiene (https://canvas.uw.edu/courses/1290762/assignments/4679767)</a>	due by 11:59pm
Tue Jun 4, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679768">Session 19   Tuesday, June 4: Environmental Justice (https://canvas.uw.edu/courses/1290762/assignments/4679768)</a>	due by 11:59pm
Thu Jun 6, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4679769">Session 20   Thursday, June 6: Future of Environmental Health (https://canvas.uw.edu/courses/1290762/assignments/4679769)</a>	due by 11:59pm
	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4779005">Extra Credit - Cyclone Idai Event (https://canvas.uw.edu/courses/1290762/assignments/4779005)</a>	due by 11:59pm
	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4778964">Extra Credit - Book Report (https://canvas.uw.edu/courses/1290762/assignments/4778964)</a>	due by 11:59pm
Fri Jun 7, 2019	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4778963">Extra Credit - Film Review (https://canvas.uw.edu/courses/1290762/assignments/4778963)</a>	due by 11:59pm
	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4778962">Extra Credit - Site Visit (https://canvas.uw.edu/courses/1290762/assignments/4778962)</a>	due by 11:59pm
	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4786463">Washington state food handler training (Due 6/7) (https://canvas.uw.edu/courses/1290762/assignments/4786463)</a>	due by 11:59pm
	 <a href="https://canvas.uw.edu/courses/1290762/assignments/4778633">Roll Call Attendance (https://canvas.uw.edu/courses/1290762/assignments/4778633)</a>	