

Course Syllabus

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 Edit

ENVH 417: Case Studies in Children's Environmental Health Disparities

Spring 2024


Contact Information

Instructor: [Anne Riederer MS, MSFS, ScD](https://deohs.washington.edu/faculty/anne-riederer)  (<https://deohs.washington.edu/faculty/anne-riederer>)
(she/her)

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Office Hours: In person, Tuesdays & Thursdays, 4:00-4:30 PM PDT, HSEB (3rd floor kitchen seating area) (sign up for individual or group slots [HERE](#);  https://docs.google.com/spreadsheets/d/19bMF2AMdT6nhf83CUHkQN1ewlwGmxP7z/edit?usp=share_link&oid=101020082094081726753&rtpof=true&sd=true) use your UW email to sign in); or on Zoom by appointment

[Contact Anne for questions related to add/drop, incomplete course grades, accommodations, medical or other emergencies, course content]

Teaching Assistant: Rachel Ziejka (she/her)

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Office Hours: Tuesdays 1:00-2:00 PM on [Zoom](https://washington.zoom.us/j/4416890659)  (<https://washington.zoom.us/j/4416890659>) or by appointment

[Contact Rachel for questions related to Canvas, technical problems, schedule, assignments, missed classes, and related concerns]

Course Times and Locations

T/Th, 2:30-3:50 PM

HSEB 245, Canvas

Land Acknowledgement

The University of Washington acknowledges the Coast Salish people of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Suquamish, Tulalip and Muckleshoot nations.

Illness Protocol

If you feel ill or exhibit respiratory or other symptoms, you should not come to class. Seek medical attention if necessary and notify your instructor(s) as soon as possible by email. Follow the [COVID-19 Public Health Flowchart](https://www.ehs.washington.edu/system/files/resources/COVID-19-public-health-flowchart.pdf) [↗](https://www.ehs.washington.edu/system/files/resources/COVID-19-public-health-flowchart.pdf) if you have COVID-19 symptoms, exposure or test positive, and adhere to the [UW Face Covering Policy](https://www.ehs.washington.edu/covid-19-prevention-and-response/face-covering-policy) [↗](https://www.ehs.washington.edu/covid-19-prevention-and-response/face-covering-policy).

Additional recommendations include getting your [annual flu shot](https://wellbeing.uw.edu/flu-vaccination/) and getting boosted with the updated COVID vaccines (available [at clinics and pharmacies, as well as through UW Medicine](https://www.washington.edu/coronavirus/vaccines/) [↗](https://www.washington.edu/coronavirus/vaccines/) and local health agencies).

Please check your email and CANVAS announcements daily BEFORE coming to class. If we need to conduct class remotely because the instructor or a guest speaker is unable to attend in person, we will send all registered students an email and/or post a CANVAS announcement with a Zoom link for remote instruction or a plan for making up the class.

Catalogue Course Description

This course introduces students to the ways in which children are disproportionately affected by environmental health hazards. Through a series of engaging case studies, students learn the core scientific concepts of children's environmental health while exploring the social, cultural, regulatory, political, and economic factors that lead to children's health disparities.

Syllabus Course Description


This course provides an in-depth introduction to the many ways in which children are disproportionately affected by environmental health hazards. Through real world case studies and knowledge-to-practice activities, students are introduced to the core concepts of children's environmental health in a multidisciplinary context, emphasizing the foundational scientific principles of exposure science, toxicology and epidemiology, as well as the social, cultural, regulatory, political, and economic factors driving disparities in children's exposures and health impacts. Activities and assignments give students opportunities to identify, evaluate, and synthesize scientific information related to children's environmental health, describe policy and regulatory approaches to reducing hazards, and recognize stakeholders' varied perspectives. Activities are also designed to develop proficiency in communicating with a variety of audiences about children's environmental health disparities and possible solutions.

Diversity Requirement

This course is an approved DIV course to fulfill the undergraduate diversity requirement.

Prerequisites: none

Required Textbook and Readings

Frumkin H (ed.). Environmental Health: from Global to Local, 3rd edition. John Wiley & Sons, Inc., San Francisco. This book is available as an [e-book through the UW Libraries website](https://ebookcentral-proquest-com.offcampus.lib.washington.edu/lib/washington/reader.action?docID=4405576&ppg=57)  (<https://ebookcentral-proquest-com.offcampus.lib.washington.edu/lib/washington/reader.action?docID=4405576&ppg=57>).(you will need to log in, using your UW credentials to access it).

Other readings are available as links in the course Canvas Modules.

Learning Objectives

After completing this course, students will be able to:

1. Describe the core concepts of environmental health (toxicity, exposure, susceptibility, risk, and prevention) and apply them in new contexts.
2. Identify the characteristics of children that make them uniquely vulnerable to environmental hazards and contribute to health disparities.
3. Describe the effects of certain key pollutants on children.
4. Locate, organize, and synthesize information about children's environmental health problems in the context of real world situations.
5. Characterize children's environmental health disparities nationally and globally in biological, cultural, political, socioeconomic, public health and health care contexts.
6. Describe regulatory, policy, and programmatic approaches to reducing children's exposures to environmental health hazards.
7. Effectively communicate about children's environmental health concepts to key audiences.

Council on Education for Public Health (CEPH) Competencies

The School of Public Health (SPH) is accredited by the Council on Education for Public Health (CEPH). Students will meet the following degree competency(s) in this course, and will be assessed as indicated:

D9. Public Health Bachelor's Degree Foundational Domains

5. the concepts of population health, and the basic processes, approaches and interventions that identify and address the major health-related needs and concerns of populations
6. the underlying science of human health and disease, including opportunities for promoting and protecting health across the life course
7. the socioeconomic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities

8. basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology

D10. Public Health Bachelor's Degree Foundational Competencies

1. Communicate public health information, in both oral and written forms, through a variety of media and to diverse audiences
2. Locate, use, evaluate, and synthesize public health information

For additional information on the 2020 SPH CEPH accreditation please visit the SPH's [CEPH Accreditation](https://sph.washington.edu/about/ceph-accreditation)  (<https://sph.washington.edu/about/ceph-accreditation>) webpage.

Course Format

This course features student-centered, active and investigative learning. Through case-based instructional strategies, students develop a framework for identifying and applying environmental health concepts to children's health and to the identification of susceptible populations and solutions. Class time contains a mix of didactics, discussions, student-led presentations, and group problem solving. A series of metacognitive activities are embedded throughout the course to help students take charge of their own thinking and learning.

Course Requirements

Each student will be expected to:

- Prepare for each live class session by completing the items noted in the module for each session. This includes assigned readings, watching assigned videos, and completing related homeworks and quizzes.
- Participate actively in class discussions and activities.
- Engage in class-based report outs and roleplays for case studies.
- Work effectively as a team member for the group project, including negotiating a team contract, helping research and write a policy brief, and delivering a component of the group presentation.
- Complete the metacognitive activities (course entrance ticket, module exit tickets, end-of-course reflection) and submit on their due dates.

Preparing for class: Reading and viewing assignments for each class session will be available through the course Canvas Modules. These will include both **assigned and suggested readings and video materials**, such as scientific articles, reports and educational products from both governmental and non-governmental organizations, textbook chapters, online modules, and instructional videos.

Homework assignments: Each class session has **homework assignments** that are organized on Canvas under Modules. Homework assignments include short quizzes on the assigned readings/viewings described above. [There are also a few in class assignments.]

In-class activities: Students will work in small groups to discuss cases (scenarios of children's environmental health problems in communities) and consider relevant responses such as research studies, a project proposal, a public information product, or other relevant intervention strategies or policy change(s).

Midterm: The midterm exam is designed to reinforce students' knowledge and understanding of core concepts in children's environmental health, as well as the lead (Pb) and asthma case studies. The midterm counts for 15% of the overall course grade and will be held in class on **Thursday, May 2**. More details on the midterm can be found in the Midterm Module.

Metacognitive activities: Evidence shows that students learn better when they actively track and reflect on their own learning process. The **course entrance ticket** helps the instructors assess students' motivations and overall learning goals, while **module exit tickets** give students the chance to evaluate their own mastery of course content at key time points. The **end-of-course reflection** gives students the opportunity to collate and synthesize their entrance and exit tickets in a thoughtful reflection on their content mastery, its application to their life going forward, and any remaining curiosity/questions. Entrance and exit tickets will be graded credit/no credit, while the end-of-course reflection will be graded.

Group project: The group project on a selected children's environmental health problem will include: **a team contract, policy brief, and presentation**. Presentations will be conducted during the last sessions of the quarter (May 23, May 28, and May 30). Groups of approximately 5 students will be assigned by the instructor with an effort to include student diversity of academic programs/previous experience. Topics must be an area/issue of children's environmental health that was not the core focus of the course case studies. An example list of topics is provided in the Group Project Module. Student groups may develop/choose their own topic not on the list with permission of the instructor. All groups must have different topics. Groups will submit their topic ideas in week 5.

Team contract: Public health is a highly collaborative field. Working successfully in a group takes skills, tools, and practice. The team contract gives students a chance to set clear expectations, deadlines, and rules of engagement for the group project, to help ensure a successful collaborative experience. The team contract template can be found in the Group Project Module. The contract must be negotiated and signed by each group member, and submitted by the due date. In the last week of the course, students will use their team's signed contract to reflect on the collaborative experience (peer evaluations).

Policy brief: The policy brief should be **2 pages max**. Guidance on writing an effective policy brief will be presented in class during Week 4. The brief should include the following components: Aim, Hook, Background Information, Supportive Data, Options/Recommendations. Draft submissions (draft outline, draft policy brief) give students the chance to receive timely and constructive feedback from the instructors. The draft submissions are required, but not graded (they will receive credit/no credit). Final policy briefs are due on the day of your group's final presentation. Final briefs are graded; a grading rubric will be provided.

Presentation of the topic and your policy brief: Your group will make a 15 minutes max presentation (10-12 slides) with each group member covering a specific part of the content (the problem you are addressing/relevant background, information and data supporting the problem and need for action, a suggested action/recommended policy or program). Your audience will then have an opportunity to ask questions about your issue and action/policy/program (5 minutes).

Student Evaluation

Course grades are based on:

30% Quizzes/homework assignments* (*lowest grade will be dropped)

15% Midterm exam

15% In class participation in discussions and activities

35% Group project:

4% Team contract

15% Policy brief

15% Oral presentation

1% Peer evaluation

5% End-of-course reflection

Grade Scale

Grade Scale

Grade	Score	Scale
A	95-100	3.9-4.0
A-	88-94	3.5-3.8
B+	83-87	3.2-3.4
B	79-82	2.9-3.1
B-	75-78	2.5-2.8
C+	72-74	2.2-2.4
C	69-71	1.9-2.1
C-	65-68	1.5-1.8
D+	62-64	1.2-1.4
D	59-61	0.9-1.1

D-	57-58	0.7-0.8
E	0-56	0.0

Late Assignment Policy




The late policy is enforced to ensure fairness among students and depends on the assignment type:

Quizzes/homeworks: There are a number of low stakes, untimed, open-book quizzes in this course that are designed to help you engage with the material before class, so we can have a productive and meaningful time together in class. The quizzes are generally available on Canvas a few days before class and are due 15 minutes before class begins. Please do your best to complete these on-time-- we know life gets busy, so you will not be penalized for a late submission up to one week. Quizzes not completed after one week past the due date will automatically be given a grade of 0, unless you make specific arrangements with the instructors before the due date.

Group project: Group work is challenging but necessary in an interdisciplinary field like public health. The rewards are higher quality deliverables and working relationships that expand our individual capabilities. Working well in a team means planning and staging intermediate work products and sticking to negotiated internal deadlines so that the final products can be submitted on time. Although the draft outline and draft policy brief are not graded, late submissions will be taken into account in the final policy brief grade. 5% will be deducted from the final policy brief grade for each day (24 hour period) past the deadline for the draft outline. Similarly, 5% will be deducted from the final policy brief grade for each day past the deadline for the draft policy brief. For the final policy brief and presentation, 10% will be deducted from the final grade for each day past the deadline, up to one week. Final policy briefs and presentations will not be accepted beyond one week past the due date, except in exceptional circumstances.

Exceptional circumstances: In the event of illness, emergency, a death in the family or other serious circumstances, please contact the instructors to make alternative arrangements for completing the coursework.

Writing Resources

All written assignments for this class must be high quality, well researched, well organized, and well written. Use plain language instead of jargon. The instructors will consider the clarity of writing when grading assignments. Writing is an important transferable skill for all career pathways. Establishing a strong foundation in writing skills will help you be successful throughout your future course work and career. This course includes written assignments with the goal to helping you identify areas of strength and improvement in writing. However, if you feel that you could benefit from additional opportunities to improve your writing skills, please explore this list of writing support resources at the UW and others accessible online (<https://sph.washington.edu/sites/default/files/2020-09/Writing-Resources-9.24.20.pdf>)  (<https://sph.washington.edu/sites/default/files/2020-09/Writing-Resources-9.24.20.pdf>)   (<https://sph.washington.edu/sites/default/files/2020-09/Writing-Resources-9.24.20.pdf/download?>)

download_frd=1)) and on the [University Libraries website \(https://guides.lib.uw.edu/c.php?g=342041&p=2300214\)](https://guides.lib.uw.edu/c.php?g=342041&p=2300214).

Course & Live Session Outline (by content & dates; see related Modules pages for details)

Week 1

Tuesday, March 26 - Module: Welcome/introductions

Thursday, March 28 - Module: Frameworks for thinking about environmental health disparities

Weeks 2 & 3 - Module: Core Concepts in Children's Environmental Health

Tuesday, April 2 - Core concepts 1

Thursday, April 4 - Core concepts 2

Tuesday, April 9 - Core concepts 3 & Exposure Smackdown!

Thursday, April 11 - Core concepts - epigenetics and intergenerational inheritance

Week 3 - Module: Group Project

Thursday, April 11 - Group topic brainstorm

Week 4 - Module: Case Study - Lead and Children

Tuesday, April 16 - Lead and children 1

Thursday, April 18 - Lead and children 2

Week 5 - Module: Group Project

Tuesday, April 23 - Constructing a policy brief; negotiating the group contract

Weeks 5 & 6 - Module: Case Study - Air Pollution and Asthma

Thursday, April 25 - Air pollution and asthma 1

Tuesday, April 30 - Air pollution and asthma 2

Week 6 - Module: Midterm Exam

Thursday, May 2 - Midterm (in class)

Week 7 - Module: Group Project

Tuesday, May 7 - Policy brief workshop (workshopping the outline)

Weeks 7 & 8 - Module: Case Study - Pesticides and Children

Thursday, May 9 - Pesticides and children 1

Tuesday, May 14 - Pesticides and children 2

Week 8 - Module: Group Project

Thursday, May 16 - Communicating science and risk - presentations

Week 9 - Module: Case Study - Special Topics

Tuesday, May 21 - Children at work, children in urban informal settlements

Weeks 9 & 10 – Module: Group Project

Thursday, May 23 – Final presentations












Tuesday, May 28 – Final presentations











Thursday, May 30 – Final presentations











Week 11 - FINALS WEEK (no final exam; finish your end-of-course reflection and peer evaluations)





Course Summary:

Date	Details	Due
Thu Mar 28, 2024	 Quiz 1 - Environmental health disparities frameworks readings (https://canvas.uw.edu/courses/1719034/assignments/9155361)	due by 2:15pm
Tue Apr 2, 2024	 Quiz 2 - Core Concepts 1 (https://canvas.uw.edu/courses/1719034/assignments/9155364)	due by 2:15pm
Thu Apr 4, 2024	 Quiz 3 - Core Concepts 2 (https://canvas.uw.edu/courses/1719034/assignments/9155355)	due by 2:15pm
Thu Apr 11, 2024	 Quiz 1 - Environmental health disparities frameworks readings (https://canvas.uw.edu/courses/1719034/assignments/9155361) (1 student)	due by 11:59pm
Thu Apr 11, 2024	 Quiz 4 - Epigenetics & finding/reading scientific evidence (https://canvas.uw.edu/courses/1719034/assignments/9155368)	due by 2:15pm
Tue Apr 16, 2024	 Quiz 5: Lead and Children 1 (https://canvas.uw.edu/courses/1719034/assignments/9155357)	due by 2:15pm
Thu Apr 18, 2024	 Quiz 6 - Lead and Children 2 - Dong Mai Case Study (https://canvas.uw.edu/courses/1719034/assignments/9155362)	due by 2:15pm

Date	Details	Due
	 Dong Mai Stakeholder Activity https://canvas.uw.edu/courses/1719034/assignments/9155370	due by 11:59pm
	 Quiz 2 - Core Concepts 1 https://canvas.uw.edu/courses/1719034/assignments/9155364 (1 student)	due by 11:59pm
	 Quiz 1 - Environmental health disparities frameworks readings https://canvas.uw.edu/courses/1719034/assignments/9155361 (1 student)	due by 11:59pm
Fri Apr 19, 2024	 Quiz 3 - Core Concepts 2 https://canvas.uw.edu/courses/1719034/assignments/9155355 (1 student)	due by 11:59pm
	 Quiz 4 - Epigenetics & finding/reading scientific evidence https://canvas.uw.edu/courses/1719034/assignments/9155368 (1 student)	due by 11:59pm
	 Quiz 7: Group Project Exposure-Disease Model https://canvas.uw.edu/courses/1719034/assignments/9155360	due by 2:15pm
Tue Apr 23, 2024	 Submit your Group Topic (due Apr 23) https://canvas.uw.edu/courses/1719034/assignments/9155380	due by 2:30pm
	 Quiz 8 - Air Pollution and Asthma 1 https://canvas.uw.edu/courses/1719034/assignments/9155356	due by 2:15pm
Thu Apr 25, 2024	 Mid-Term Exam https://canvas.uw.edu/courses/1719034/assignments/9155365 (2 students)	due by 2pm
	 Quiz 9: Air Pollution and Asthma 2 https://canvas.uw.edu/courses/1719034/assignments/9155359	due by 2:15pm
Tue Apr 30, 2024	 Submit your Team Contract (due April 30) https://canvas.uw.edu/courses/1719034/assignments/9155381	due by 2:15pm

Date	Details	Due
Thu May 2, 2024	 Mid-Term Exam (https://canvas.uw.edu/courses/1719034/assignments/9155365) (1 student)	due by 5pm
	 Mid-Term Exam (https://canvas.uw.edu/courses/1719034/assignments/9155365)	due by 5pm
Mon May 6, 2024	 Submit your Draft Policy Brief Outline (due midnight May 6) (https://canvas.uw.edu/courses/1719034/assignments/9155375)	due by 11:59pm
Tue May 7, 2024	 Submit your Final Policy Brief Outline (due midnight May 7) (https://canvas.uw.edu/courses/1719034/assignments/9155378)	due by 11:59pm
Thu May 9, 2024	 Quiz 10 - Pesticides and Children 1 (https://canvas.uw.edu/courses/1719034/assignments/9155367)	due by 2:15pm
Tue May 14, 2024	 Quiz 11 - Pesticides and Children 2 (https://canvas.uw.edu/courses/1719034/assignments/9155358)	due by 2:15pm
Fri May 17, 2024	 Quiz 1 - Environmental health disparities frameworks readings (https://canvas.uw.edu/courses/1719034/assignments/9155361) (1 student)	due by 11:59pm
	 Quiz 2 - Core Concepts 1 (https://canvas.uw.edu/courses/1719034/assignments/9155364) (1 student)	due by 11:59pm
	 Quiz 3 - Core Concepts 2 (https://canvas.uw.edu/courses/1719034/assignments/9155355) (1 student)	due by 11:59pm
	 Quiz 4 - Epigenetics & finding/reading scientific evidence (https://canvas.uw.edu/courses/1719034/assignments/9155368) (1 student)	due by 11:59pm
	 Quiz 5: Lead and Children 1 (https://canvas.uw.edu/courses/1719034/assignments/9155357) (1 student)	due by 11:59pm

Date	Details	Due
	 Quiz 6 - Lead and Children 2 - Dong Mai Case Study https://canvas.uw.edu/courses/1719034/assignments/9155362 (1 student)	due by 11:59pm
	 Quiz 7: Group Project Exposure-Disease Model https://canvas.uw.edu/courses/1719034/assignments/9155360 (1 student)	due by 11:59pm
	 Quiz 8 - Air Pollution and Asthma 1 https://canvas.uw.edu/courses/1719034/assignments/9155356 (1 student)	due by 11:59pm
Tue May 21, 2024	 Quiz 12 - Special Topics 1 - Child Labor https://canvas.uw.edu/courses/1719034/assignments/9155363	due by 2:15pm
	 Quiz 13 (THE LAST ONE!) - Children in Slums https://canvas.uw.edu/courses/1719034/assignments/9155366	due by 2:15pm
Thu Jun 6, 2024	 Group Project Peer Evaluation - due June 6 https://canvas.uw.edu/courses/1719034/assignments/9155373	due by 11:59pm
	 Submit your End of Course Reflection - due June 6 https://canvas.uw.edu/courses/1719034/assignments/9155376	due by 11:59pm
	 Core Concepts Module Exit Ticket - Complete/submit before class on April 20 https://canvas.uw.edu/courses/1719034/assignments/9155369	
	 Entrance ticket and short video https://canvas.uw.edu/courses/1719034/assignments/9155371	
	 Farm Workers In-Class Activity https://canvas.uw.edu/courses/1719034/assignments/9155372	

Date	Details	Due
	 Submit your Draft Policy Brief - check your assigned due date (https://canvas.uw.edu/courses/1719034/assignments/9155374)	
	 Submit your Final Policy Brief - check your assigned due date (https://canvas.uw.edu/courses/1719034/assignments/9155377)	
	 Submit your Final Presentation slides - check your assigned due date (https://canvas.uw.edu/courses/1719034/assignments/9155379)	
	 Week 3 In-class Activity - Tues. 4/09/2024: Enter your Exposure Smackdown! entry here (https://canvas.uw.edu/courses/1719034/assignments/9155382)	