ENV H 305 A Wi 23: Environmental Poisons And Public He alth

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ENV H 305 A: Environmental Poisons and Public Health

Quarter: Winter 2023

Credits & Grading: 3 credits, graded

Time: Monday's and Wednesday's from 1:00-2:20 PM

Location: HSEB 235

Professor: Dr. Elaine M. Faustman (she/her)

Office hours: By appointment

Office: 4225 Roosevelt Way NE, Suite 100, Rm. 208

Telephone: 206-685-2269

Email: faustman@uw.edu (mailto:faustman@uw.edu)

Professor: Dr. Yijie Geng (he/him)

Office hours: By appointment

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TA: Youjun Suh (he/him)

Email: pctpyj@uw.edu



Dr. Elaine M. Faustman, Professor and Director of the Institute of Risk Analysis and Risk Communication, School of Public Health, University of Washington, Seattle. She is a toxicologist and public health scientist. Her research expertise is on integrative systems based scientific approaches including identifying molecular mechanisms of developmental, reproductive, and neuro toxicants, characterizing in vitro techniques for toxicology assessment, and developing biological and exposure-based dose-response models. She supports a One Health framework for evaluating Environmental and Public Health impacts. She has over 200 peer reviewed research publications and reports.

Dr. Faustman has directed the Center for Children's Health Research and the Pacific Northwest Center for the National Children's Study and the Oceans and Human Health Center. She is an elected fellow of the American Association for the Advancement of Science and the Society for Risk Analysis. She has served on the USEPA Science Advisory Board and chaired the National Academy of Sciences Committee on Developmental Toxicology. She has also served on the National Advisory Environmental Health Sciences Council, NIEHS-NTP Board of Scientific Counselors and Committee on Alternative Toxicology Methods, National Academy of Sciences Committee on Toxicology and the Institute of Medicine Upper Reference Levels of Nutrient Subcommittee of the Food and Nutrition Board. She has served as the Secretary General for the International Union of Toxicology (IUTOX) and is past co-chair and a member of the International Science Council (ICSU) World Data Systems Advisory Board. For over 2 decades she has been involved and directed Stakeholder forums and Community Based Participatory Research for DOE, EPA and NIH. She currently serves on the ICSU CODATA Citizen Sciences Task group.

2/8/23, 1:17 PM



Dr. Yijie Geng is Assistant Professor in the Department of Environmental & Occupational Health Sciences at the University of Washington School of Public Health. He received his BS in biological sciences and bioengineering from Tsinghua University and his PhD in cell and developmental biology from University of Illinois at Urbana-Champaign. He completed his post-doctoral research at Harvard and University of Utah, focusing on using chemical biology and machine learning to study environmental impacts on social behavior.

Dr. Geng is broadly interested in elucidating the molecular basis of social behavior in health and diseases. A current focus of the Geng lab is to understand how environmental factors influence social behavior and its related mental illnesses such as autism spectrum disorder. His work integrates model organisms (zebrafish and rodents), chemical biology (high-throughput chemical screening) and toxicology, machine learning, genetics, neuroscience, and translational medicine, with the goal of introducing a new research paradigm into the field of environmental toxicology for mental illnesses.

Background

This course will explore some of the following core concepts of EHS/Toxicology as they pertain to a particular substance/toxicant: Fate & Transport, Dose response, Effects of absorption, distribution, metabolism, and excretion on toxicity, Effects of exposure on toxicity, Individual and population susceptibility, Toxicity testing, Occupational and environmental epidemiology, Risk assessment, policy and regulatory framework. The foundation and course context will be created to learn these core concepts within a risk-based framing of how, when, and where poisons and toxicants affect humans and animal health.

Course Description

The goal of this course is to introduce undergraduate students in all majors to the various ways in which chemical hazards impact both the environment in which they are found and the humans who interact with them. Topics covered include the history of hazardous substances in the environment, how these

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substances move through various ecological systems, how humans are exposed to them, what adverse human health effects they may cause, what are the key factors influencing toxicity and susceptibility, and what regulatory frameworks are in place to help minimize risk. The course is designed to facilitate student-centered, active and investigative learning. In addition to formal lectures, case-based instructional strategies are used to introduce and explore the core concepts of toxicology and related environmental health disciplines and apply these concepts to real-world situations with relevance to students' lives. Through the lens of case-based modules, students learn to critically evaluate media reports about environmental hazards to human health by applying core principles from toxicology and other related environmental public health disciplines.

Course Credit:

The course is a 3-credit course and class time will be used in a balance of didactic lectures as well as participatory exercises, presentation, and discussion.

Course Objectives:

Upon completion of this course students will demonstrate the ability to:

- 1. Explain where certain exemplary environmental toxicants come from, how they got there, and how they move through the environment.
- 2. Describe the various ways in which humans are exposed to these toxicants and how they can enter the human body.
- 3. Identify the key factors that determine how toxic these substances are to humans.
- 4. Describe the adverse human health effects that can be caused by exposure to these toxicants and how experimental and epidemiological studies have been used to identify these effects.
- 5. Describe the basic elements of risk assessment and give examples of their application to specific environmental toxicants.
- 6. Critically evaluate informal and formal reports about environmental hazards to human health by applying core principles from toxicology and other related environmental public health disciplines.
- 7. Identify factors (including biological, social, cultural and also systemic racism) that affect the susceptibility and vulnerability of individuals as well as human populations to toxicants.

Course Competencies:

Upon completion of this course students shall understand:

- 1. The history of hazardous substances in the environment
- 2. How these substances move through various ecological systems

- 3. How humans are exposed to them
- 4. What adverse human health effects they may cause
- 5. Key factors influencing toxicity and susceptibility
- 6. Regulatory frameworks in place to help minimize risk

Grading and Assignments

Course Breakdown:

Grade %	Assignment
	Graded Assignments:
30%	First Group Presentation
40%	Second Group Presentation
	Credit/No Credit Assignments:
15%	Milestone Responses
15%	Group Presentation Reflections

Group Presentations:

Groups of 4 students each will research a selected toxicology subject and present a short (**10 minutes maximum**) presentation. Grades for each small group presentation will be based on a combination of instructor/TA evaluation (60%) and peer evaluation by group members for individual contribution (40%). Everyone in the group will receive the same grade unless peer evaluation feedback indicates that an individual group member deserves a lower/higher grade based on their contribution to the project.

Each of the two presentations will be on a different subtopic. The **first** group presentation must answer the following questions about their respective subject:

- What is the toxicological problem?
- Why is this problem important/significant?

The **second** group presentation must answer the following questions about their respective subject:

- What is the hazard?
- How are humans exposed to this hazard? (i.e. What is the source of this toxicant?)

- What does the hazard do?
- What factors can affect how susceptible individuals and populations are to these toxicants?
- How can we prevent the harmful effects of this hazard?

Presentation Reflections:

On weeks with presentations, students must write a reflection discussion post by 11:59pm Sunday of that week describing aspects of one presentation they liked, and the toxicological concepts they learned from it.

Milestone Posts:

Every week by 11:59pm Sunday, each student should choose a milestone (Link to (https://www.asmalldoseoftoxicology.org/milestones-posters) page (https://www.asmalldoseoftoxicology.org/milestones-posters)) from the assigned time period, write a discussion post, and reply to one peer post. This discussion post should address: What is this "milestone," and why is it important for toxicology? Be prepared to share your thoughts in class (typically on Mondays).

Text Books/Reading Materials:

Core Recommended Readings:

- Gilbert, S. (2020). A small dose of toxicology: The health effects of common chemicals. <u>https://www.asmalldoseoftoxicology.org/download-in-english</u> ⇒
 (<u>https://www.asmalldoseoftoxicology.org/download-in-english</u>) (Free online. Links to an external site.)
- Klaassen, Curtis D, & Watkins, John B. (2015). Casarett & Doull's essentials of toxicology(3rd). New York, N.Y.: McGraw-Hill Companies. Link (Free access for students through UW libraries. Links to an external site.) ⇒ (https://alliance-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?
 docid=CP71242139490001451&context=L&vid=UW&search_scope=course_reserves&tab=cr&lang=en_US)

Optional Readings:

- Richards, I., & Bourgeois, Marie. (2013). *Principles and practice of toxicology in public health*(2nd ed.). Sudbury, Mass.: Jones & Bartlett Learning. (Hard Copy available now in Health Science Library)
- Frumkin, H., Editor (2016). Environmental health: from global to local(3^{rg} ed). San Francisco, CA: Jossey-Bass, A Wiley Brand. Link (Links to an external site.) ⇒ (https://alliance-

primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay? docid=CP71248721020001451&context=L&vid=UW&search scope=course reserves&tab=cr&lang=en US)

Zoom/Slide Posting:

All slides will be posted, and we will use Zoom to record videos of all classes.

Classroom Climate

Land Acknowledgment: Washington State is home []. (https://www.washingtontribes.org/tribes-map) to 29 federally recognized and five unrecognized tribes. We hope to demonstrate our collective humility and respect for the original caretakers of the land that the School of Public Health sits on. We encourage students to find out who the original settlers of the land they are on to encourage deeper understanding and solidarity with indigenous people.

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.

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 <u>SPH Academic</u> 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.

Statement on Inclusion and Diversity:

Diverse backgrounds, embodiments and experiences are essential to the critical thinking endeavor at the heart of University education. In SPH, we are expected:

- 1. To respect individual differences, which may include, but are not limited to, age, cultural background, disability, ethnicity, family status, gender identity and expression, citizenship and immigration status, national origin, race, religion, sex, sexual orientation, socioeconomic status and veteran status.
- 2. To engage respectfully in the discussion of diverse worldviews and ideologies embedded in course readings, presentations and artifacts, including those course materials that are at odds with personal beliefs and values.

On our first day of class we will create ground rules together to follow in promoting a productive learning

environment for all members of the class. I am committed to making this class an equitable learning

environment. Please talk with me right away if you experience disrespect in this class from other students

and/or from me, and I will work to address it in an educational manner.

UW School of Public Health Equity Diversity and Inclusion Statement:

Our School of Public Health is committed to addressing the root causes of health inequities and promoting healthy and safe communities in our region and beyond. As the problem of racial and ethnic disparities in health outcomes continues to persist, policymakers and the general public increasingly look to health professional schools to address these urgent and unacceptable circumstances. As one of the few schools of public health in the Northwest, it is particularly important for us to be up to this challenge.

Underlying all public health research and training activities is an acknowledgement and deeper understanding of the effects that historical, cultural, and socioeconomic factors have on the health of communities, especially those who are most underserved. Racism and race-based oppression is all too often a central driver of health disparities. We work to attract and retain students, faculty and staff from diverse backgrounds and perspectives, to build and sustain a positive climate for inclusion and community, and to engender multiple modes of approaching complex problems. We strive to create opportunities for education, research and collaboration that leverage our strengths, similarities, and differences. We challenge ourselves to view problems and evaluate solutions through an equity lens. Through each of these efforts, we aim to foster a generation of public health professionals and academicians who are poised to transform health for the better in our communities.

Our historical logo, the Soul Catcher by Marvin Oliver, symbolizes the restoration of health and wellness and reminds us to align our work with the history, traditions, and practices while respecting and supporting the agency of individuals and communities to achieve their desired health outcomes. More information about our logo can be found <u>here</u> \implies (http://sph.washington.edu/about/soulcatcher.asp).

The work of equity, diversity and inclusion is the work of Public Health. We are committed to a future that is free of health inequities, that promotes the highest level of wellness that our communities aim for, and a diverse and inclusive public health workforce that embodies humility, respect, leadership and service on behalf of the diverse communities we are privileged to serve.

Statement on Classroom Climate:

We are co-creators of our learning environment. It is our collective responsibility to develop a supportive learning environment for everyone. Listening with respect and an open mind, striving to understand others' views, and articulating your own point of view will help foster the creation of this environment. We engage our differences with the intent to build community, not to put down the other and distance our self from the other. Being mindful to not monopolize discussion and/or interrupt others will also help foster a dialogic environment.

The following guidelines (Rules of Engagement) can add to the richness of our discussion:

- We assume that persons are always doing the best that they can, including the persons in this learning environment.
- We acknowledge that systematic oppression exists based on privileged positions and specific to race, gender, class, religion, sexual orientation, and other social variables and identities.
- We posit that assigning blame to persons in socially marginal positions is counter-productive to our practice. We can learn much about the dominant culture by looking at how it constructs the lives of those on its social margins.
- While we may question or take issue with another class member's ideology, we will not demean, devalue, or attempt to humiliate another person based on her/his experiences, value system, or construction of meaning.
- We have a professional obligation to actively challenge myths and stereotypes about our own groups and other groups so we can break down the walls that prohibit group cooperation and growth.
 [Adapted from Lynn Weber Cannon (1990). Fostering positive race, class, and gender dynamics in the classroom. *Women Studies Quarterly, 1 & 2, 126-134.*]

We are a learning community. As such, we are expected to engage with difference. Part of functioning as a learning community is to engage in dialogue in respectful ways that supports learning for all of us and that holds us accountable to each other. Our learning community asks us to trust and take risks in being vulnerable.

Here are some specific guidelines to support our course engagement that we will use in our learning process:

• LISTEN WELL and be present to each member of our group and class.

- Assume that I might miss things others see and see things others 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.
- Extend the same listening to others I would wish them to extend to me.
- Surface my feelings in such a way that I make it easier for others to surface theirs.
- Regard my views as a perspective onto the world, not the world itself.
- Beware of either-or thinking.
- Beware of my assumptions of others and their motivations.
- Test my assumptions about how and why people say or do things.
- Be authentic in my engagement with all members of our class.

Reporting Learning Environment Concerns: The Office of the Dean has a student concern policy

(https://sph.washington.edu/students/student-concern-policy), a faculty concern policy and standard HR

procedures for staff concerns. Students are encouraged to report any incidents of bias in any of the

following ways:

• Report the incident to someone they feel comfortable with (including teaching staff, adviser or

department staff) or directly inform the SPH Assistant Dean for Equity, Diversity & Inclusion Dr. Victoria

Gardner at vg@uw.edu.

• Email dcinfo@uw.edu (mailto:dcinfo@uw.edu) to file a non-anonymous, confidential report (tracked

by Director of Student and Academic Services and Assistant Dean of Equity, Diversity & Inclusion) or

• Send an anonymous and confidential report using the bias concern form <u>here</u>

(<u>https://catalyst.uw.edu/webq/survey/vg/375764</u>). Report is received by the Assistant Dean for EDI and the Director of Program Operations for Student and Academic Services and tracked for investigation and/or resolution. Reporter can remain completely anonymous but will not receive a response.

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 are not limited to mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact https://canvas.uw.edu/courses/1612754

DRS at 206-543-8924 or <u>uwdrs@uw.edu (mailto:uwdrs@uw.edu)</u> or <u>disability.uw.edu.</u> (<u>http://depts.washington.edu/uwdrs/)</u> 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/religiousaccommodations-policy/) Implicit (https://registrar.washington.edu/staffandfaculty/religious-accommodationspolicy/). Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religiousaccommodations request/) Implicit (https://registrar.washington.edu/students/religiousaccommodations-request/) Implicit (https://registrar.washington.edu/students/religious-accommodations-

Pronouns: We share our pronouns because we strive to cultivate an inclusive environment where people of all genders feel safe and respected. We cannot assume we know someone's gender just by looking at them. So, we invite everyone to share their pronouns. Please note that Dr. Faustman uses the She/Her pronouns.

Course Schedule

Time: Monday's and Wednesday's from 1:00 – 2:20 PM

Location: HSEB 235

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Date	Module	Description	Suggested Readings
Week 1 -			Essentials of Toxicology:
01/04/23 (Wednesday)	Historical Examples	Course Introduction	Essentials of Toxicology: Chapter 1
Week 2 - 01/09/23	Principles of Toxicology	Description of Presentations and	
(Monday)		Student Introductions	
Week 2 -		What is Toxicology?	Small Dose of
01/11/23	Presentations		Toxicology: Chapter 2 of
(Wednesday)		Milestone Presentation	Third Edition
Week 3 -			
01/16/23	No Class	Martin Luther King Day	No readings
(Monday)			
Week 3 -			
01/18/23	Toxicology Cont.	Toxicology Cont. & Group Meetings/Organization	No readings
(Wednesday)			
Week 4 -			
01/23/23	Introduction to Risk Assessment	What is Risk Assessment?	Essentials of Toxicology: Chapter 4
(Monday)			
Week 4 -		First Group Presentations I	
01/25/23	Presentations		No readings
(Wednesday)		Milestone Presentation	

(Monday)			
02/20/23			
Week 8 -	No Class	President's Day	No Readings
		Milestone Presentation	
(Wednesday)			& 25 of Third Edition
02/15/23	Developmental/ Reproductive Toxicity	developmental and reproductive toxicity?	Small Dose of Toxicology: Chapter 20
Week 7 -		What are endocrine disruptors? What toxicants can cause	
(Monday)	Neurotoxicity		of Third Edition
02/13/23	Examples of	Animal and Plant Toxins	Small Dose of Toxicology: Chapter 22
Week 7 -			
(Wednesday)		Milestone Presentation	
02/08/23	Presentations		No readings
Week 6 -		First Group Presentations III	
(Monday)		eliminated? How to Game the system.	
02/06/23	Kinetics and Dynamics of Toxicants	through the body? How are they changed? Where are they	Essentials of Toxicology: Chapter 5 & 6
Week 6 -		How do toxicants get in and circulate	
(Wednesday)		Milestone Presentation	
02/1/23	Presentations		No readings
Week 5 -		First Group Presentations II	
(Monday)			Chapter 3
01/30/23	Mechanisms of Toxicity	How do poisons work?	Essentials of Toxicology:
Week 5 -			

Week 8 - 02/22/23 (Wednesday)	Persistent Environmental Pollutants, Ethics	Body Burden Ethics of Toxicology	Small Dose of Toxicology: Chapter 19 of Third Edition
Week 9 - 02/27/23 (Monday)	Pesticides	Human Health Effects	No readings
Week 9 - 03/01/23 (Wednesday)	Presentations	Second Group Presentations I Milestone Presentation	No readings
Week 10 - 03/06/23 (Monday)	Cancer and Genetics	Chemical Carcinogens and Genetic Toxicology	Small Dose of Toxicology: Chapter 24 of Third Edition
Week 10 - 03/08/23 (Wednesday)	Presentations	Second Group Presentation II Milestone Presentation	Last day of class
	Final's week Presentations & Reflections	Second Group Presentations IV	

• Note that there is no final exam however if all student groups are not able to present we will use this time for their final presentations and review.

Course Summary:

Wed Jan 4, 2023 Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028120&include_contexts=course_1612754) 1pm to 2:30pm (https://canvas.uw.edu/calendar? event_id=3028121&include_contexts=course_1612754) Mon Jan 9, 2023 Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028121&include_contexts=course_1612754) 1pm to 2:30pm (https://canvas.uw.edu/calendar? event_id=3028121&include_contexts=course_1612754) Tue Jan 10, 2023 Image: Environmental Poisons And Public Health (https://canvas.uw.edu/courses/1612754/assignments/798853) due by 11:59pm (https://canvas.uw.edu/courses/1612754/assignments/798853) Wed Jan 11, 2023 Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028122&include_contexts=course_1612754) 1pm to 2:30pm (https://canvas.uw.edu/calendar? event_id=3028122&include_contexts=course_1612754) Tue Jan 17, 2023 Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028122&include_contexts=course_1612754) due by 11:59pm (https://canvas.uw.edu/calendar? event_id=3028122&include_contexts=course_1612754) Wed Jan 18, 2023 Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028124&include_contexts=course_1612754) ipm to 2:30pm (https://canvas.uw.edu/calendar? event_id=3028124&include_contexts=course_1612754) Wed Jan 18, 2023 Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028124&include_contexts=course_1612754) ipm to 2:30pm (https://canvas.uw.edu/c	2/8/23, 1:17 PM	ENV H 305 A Wi 23: Environmental Poisons And Public Health	
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Tue Jan 10, 2023 HW (Antiquity) (https://canvas.uw.edu/courses/1612754/assignments/7988632) due by 11:59pm Wed Jan 11, 2023 Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event.id=3028122&include_contexts=course_1612754) 1pm to 2:30pm Tue Jan 17, 2023 FV Week 2 - Milestone Discussion HW (Middle Ages). (https://canvas.uw.edu/courses/1612754/assignments/7988631) due by 11:59pm Wed Jan 18, 2023 ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event.id=3028124&include_contexts=course_1612754) 1pm to 2:30pm Won Jan 23, 2023 ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event.id=3028124&include_contexts=course_1612754) 1pm to 2:30pm Tue Jan 24, 2023 FV Week 3 - Milestone Discussion HW (Renaissance) (https://canvas.uw.edu/courses/1612754/assignments/7988630) due by 11:59pm Wed Jan 25, 2023 ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/courses/1612754/assignments/7988630) 1pm to 2:30pm Wed Jan 24, 2023 ENV H 305 A Wi 23: Environmental Poisons And Public 1pm to 2:30pm	Mon Jan 9, 2023	Environmental Poisons And Public Health (https://canvas.uw.edu/calendar?	1pm to 2:30pm
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Tue Jan 17, 2023HW (Middle Ages) (https://canvas.uw.edu/courses/1612754/assignments/7988631)due by 11:59pmWed Jan 18, 2023Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028124&include_contexts=course_1612754)1pm to 2:30pmMon Jan 23, 2023Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028124&include_contexts=course_1612754)1pm to 2:30pmTue Jan 24, 2023Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028125&include_contexts=course_1612754)1pm to 2:30pmWed Jan 25, 2023Image: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028125&include_contexts=course_1612754)1pm to 2:30pmWed Jan 25, 2023Image: Environmental Poisons And Public HW (Renaissance) (https://canvas.uw.edu/courses/1612754/assignments/7988630)1pm to 2:30pmWed Jan 25, 2023Image: Environmental Poisons And Public Environmental Poisons And Public1pm to 2:30pm	Wed Jan 11, 2023	Environmental Poisons And Public Health (https://canvas.uw.edu/calendar?	1pm to 2:30pm
Wed Jan 18, 2023 Environmental Poisons And Public 1pm to 2:30pm (https://canvas.uw.edu/calendar? event.id=3028124&include_contexts=course_1612754) 1pm to 2:30pm Mon Jan 23, 2023 Environmental Poisons And Public 1pm to 2:30pm Mon Jan 23, 2023 Environmental Poisons And Public 1pm to 2:30pm Multips://canvas.uw.edu/calendar? event_id=3028125&include_contexts=course_1612754) 1pm to 2:30pm Tue Jan 24, 2023 Week 3 - Milestone Discussion due by 11:59pm (https://canvas.uw.edu/courses/1612754/assignments/7988630) 1pm to 2:30pm Weed Jan 25, 2023 ENV H 305 A Wi 23: 1pm to 2:30pm	Tue Jan 17, 2023	HW (Middle Ages)	due by 11:59pm
Mon Jan 23, 2023Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028125&include_contexts=course_1612754)1pm to 2:30pmTue Jan 24, 2023Image: Week 3 - Milestone Discussion HW (Renaissance) (https://canvas.uw.edu/courses/1612754/assignments/7988630)due by 11:59pmWeed Jan 25, 2023Image: Environmental Poisons And Public1pm to 2:30pm	Wed Jan 18, 2023	Environmental Poisons And Public Health (https://canvas.uw.edu/calendar?	1pm to 2:30pm
Tue Jan 24, 2023 HW (Renaissance) (https://canvas.uw.edu/courses/1612754/assignments/7988630) due by 11:59pm Wed Jan 25, 2023 Im ENV H 305 A Wi 23: Environmental Poisons And Public 1pm to 2:30pm	Mon Jan 23, 2023	Environmental Poisons And Public Health (https://canvas.uw.edu/calendar?	1pm to 2:30pm
Environmental Poisons And Public	Tue Jan 24, 2023	HW (Renaissance)	due by 11:59pm
	Wed Jan 25, 2023	Environmental Poisons And Public	1pm to 2:30pm

Date	Details	Due
	(https://canvas.uw.edu/calendar? event_id=3028126&include_contexts=course_1612754)	
Mon Jan 30, 2023	ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028127&include_contexts=course_1612754)	1pm to 2:30pm
Tue Jan 31, 2023	<mark>₽ Week 4 - Milestone Discussion</mark> <u>HW (1700s)</u> (<u>https://canvas.uw.edu/courses/1612754/assignments/7988629)</u>	due by 11:59pm
Tue Jan 51, 2025	F과 <u>Week 4 - Presentation</u> <u>Reflection HW</u> <u>(https://canvas.uw.edu/courses/1612754/assignments/8070334)</u>	due by 11:59pm
Wed Feb 1, 2023	ENV H 305 A Wi 23: Environmental Poisons And Public <u>Health</u> (<u>https://canvas.uw.edu/calendar?</u> <u>event_id=3028128&include_contexts=course_1612754)</u>	1pm to 2:30pm
Mon Feb 6, 2023	ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028129&include_contexts=course_1612754)	1pm to 2:30pm
	Week 5 - Milestone Discussion HW (1800s) (https://canvas.uw.edu/courses/1612754/assignments/8080643)	due by 11:59pm
Tue Feb 7, 2023	Week 5 - Presentation Reflection HW (https://canvas.uw.edu/courses/1612754/assignments/8070336)	due by 11:59pm
Wed Feb 8, 2023	ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028130&include_contexts=course_1612754)	1pm to 2:30pm

/8/23, 1:17 PM	ENV H 305 A Wi 23: Environmental Poisons And Public Health	
Date	Details	Due
Mon Feb 13, 2023	ENV H 305 A Wi 23: <u>Environmental Poisons And Public</u> <u>Health</u> (https://canvas.uw.edu/calendar? event_id=3028131&include_contexts=course_1612754)	1pm to 2:30pm
	Peer Evaluation HW (Only for people who presented) (https://canvas.uw.edu/courses/1612754/assignments/8070344)	due by 11:59pm
Tue Feb 14, 2022	Week 6 - Milestone Discussion HW (1900-1930s) (https://canvas.uw.edu/courses/1612754/assignments/8080646)	due by 11:59pm
Tue Feb 14, 2023	₩ Week 6 - Presentation Reflection HW (https://canvas.uw.edu/courses/1612754/assignments/8070338)	due by 11:59pm
Wed Feb 15, 2023	ENV H 305 A Wi 23: <u>Environmental Poisons And Public</u> <u>Health</u> (<u>https://canvas.uw.edu/calendar?</u> <u>event_id=3028132&include_contexts=course_1612754)</u>	1pm to 2:30pm
Mon Feb 20, 2023	ENV H 305 A Wi 23: <u>Environmental Poisons And Public</u> <u>Health</u> (<u>https://canvas.uw.edu/calendar?</u> <u>event_id=3028133&include_contexts=course_1612754)</u>	1pm to 2:30pm
Wed Feb 22, 2023	ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028134&include_contexts=course_1612754)	1pm to 2:30pm
Mon Feb 27, 2023	ENV H 305 A Wi 23: Environmental Poisons And Public Health (https://canvas.uw.edu/calendar? event_id=3028135&include_contexts=course_1612754)	1pm to 2:30pm
Wed Mar 1, 2023	ENV H 305 A Wi 23: Environmental Poisons And Public Health	1pm to 2:30pm

Date	Details	Due
	(https://canvas.uw.edu/calendar?	
	event_id=3028136&include_contexts=course_1612754)	
	🗰 ENV H 305 A Wi 23:	
	Environmental Poisons And Public	
Mon Mar 6, 2023	<u>Health</u>	1pm to 2:30pm
	(https://canvas.uw.edu/calendar?	
	event_id=3028137&include_contexts=course_1612754)	
	🛗 ENV H 305 A Wi 23:	
	Environmental Poisons And Public	
Wed Mar 8, 2023	Health	1pm to 2:30pm
	(https://canvas.uw.edu/calendar?	rr
	event_id=3028138&include_contexts=course_1612754)	
	🛗 ENV H 305 A Wi 23:	
	Environmental Poisons And Public	
Mon Mar 13, 2023	Health	1pm to 2:30pm
,	(https://canvas.uw.edu/calendar?	
	event_id=3028139&include_contexts=course_1612754)	
	🛗 ENV H 305 A Wi 23:	
	Environmental Poisons And Public	
Wed Mar 15, 2023	Health	1pm to 2:30pm
100 110 10, 2020	(https://canvas.uw.edu/calendar?	
	event_id=3028140&include_contexts=course_1612754)	
	Presentation 1	
	(https://canvas.uw.edu/courses/1612754/assignments/8070333)	