Environmental Health: Human and Animal Health in a Changing Environment

Winter Quarter 2023

Daytime: TTh 8:30-9:50AM
In-person: HSEB 325

INSTRUCTOR

Julianne Meisner, BVM&S MS PhD
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Office Hours: Tuesdays at 10:30am on Zoom (https://washington.zoom.us/j/9350570041).

TA

Michelle Pollowitz
Pronouns: She/her/hers
Email: mpuw23@uw.edu
Office Hours: Thursdays at 10:30am in person or on zoom

GUEST SPEAKERS:

- Kevin Bardosh, PhD, Department of Environmental and Occupational Sciences (affiliate)
- Mary Margaret Callahan, Senior National Director of Program Development at Pet Partners, where she oversees the Therapy Animal Program which registers nine different species
- Jose Carmona, MPH, Washington State Department of Labor and Industries
- Lisa Dabek, PhD, Program Director and Senior Conservation Scientist, Woodland Park Zoo
- Gemina Garland-Lewis, MS in Conservation Medicine, Research Coordinator, Center for One Health Research, UW
- Kathryn Kuehl, DVM, Assistant Professor, Washington State University College of Veterinary Medicine
- Robert M. Liddell, MD, Medical Director & Musculoskeletal/Body Radiologist, Center for Diagnostic Imaging, Inc.
- Navaratnam Partheeban, BVM&S MRCVS, Director, Oxford Farming Initiative
- Daniel Promislow PhD, UW Department of Genetics
- Michelle Rivard, DVM, Wildlife veterinarian, SR3
- Yona Sipos, PhD, Department of Nutrition
- Tim Storms, DVM, Director, Animal Health Programs, Seattle Woodland Park Zoo
- Anina Terry, ARNP, Neighborcare Health

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.

COURSE DESCRIPTION

One Health is a field that employs a multi-disciplinary approach to address the inextricable links between human health, animal health, and ecosystem health in order to achieve optimal health for all. One Health incorporates multiple perspectives to assess the underlying causes of complex "wicked" health challenges in order to develop effective and ethical "win-win" solutions. Using a case-based approach, the course will follow the ECOHAB acronym for human-animal-ecosystem health connections: (EXPOSURES to zoonotic infectious diseases and other biological, chemical, and physical hazards, COMPARATIVE clinical similarities between humans and animals, OCCUPATIONAL aspects of working with animals, the HUMAN-ANIMAL-NATURE BOND, AGRICULTURE and food systems, and BIODIVERSITY).
Concepts and approaches presented during classroom sessions will be reinforced through a quarter-long group project which connects these themes to Indigenous knowledge and voices, and meaningful community engagement under an equitable model for One Health research and practice.

LEARNING OBJECTIVES (Joint 439 and 539)

Upon completion of this course, students will be able to:

1. Explain at least six types of connections between human, animal, and ecosystem health, following the acronym ECOHAB (Exposures, Comparative, Occupational, Human Animal-Nature Bond, Agriculture/food, Biodiversity).
2. Describe the relationship between One Health and Indigenous knowledge and worldviews
3. Apply a community-driven, place-based approach to a wicked One Health problem
4. For at least 3 different One Health scenarios, characterize the expertise necessary to address the problem, considering human, animal, and environmental health specialists, but also social scientists, policy makers, and non-traditional forms of expertise. Outline the roles of each expert.

GRADUATE LEVEL LEARNING OBJECTIVES (539 only)

Upon completion of the course, graduate students will be able to:

5. Cultivate an groupwork environment grounded in the values of inclusivity, respect, safety, teamwork and accountability. Communicate any problems in your group to the instructor and/or TA as soon as possible.
6. Prepare and give a presentation on a community-driven approach to tackling a wicked One Health problem

TEXTS and REFERENCES

Course text

*Fresh Banana Leaves: Healing Indigenous Landscapes Through Indigenous Science* by Jessica Hernandez will be taught as the course text. There will be periodic check-ins on your readings throughout the course so please make sure to get a copy and start reading ASAP! There are a few ways you can get a copy:

- **e-book**
  (https://na01.alma.exlibrisgroup.com/view/action/uresolver.do;jsessionid=B824C07168F9765D4C0EC3AA557D6E99.app04.na01.prod.alma.dc04.hosted.exlibrisgroup.com?operation=resolveService&package_service_id=85519180040001452&institutionId=1452&customerId=1450) (free, requires UW login)
- **UW Bookstore** (https://www.ubookstore.com/Fresh-Banana-Leaves) (in-stock in Bothell and Tacoma, back-ordered at U-District location until late March 2022)
- **Local bookstores**! Elliott Bay Book Company (https://www.elliottbaybook.com/book/9781623176051), has it in stock as of mid-March

Other required readings

Additional reading assignments and course materials, such as videos, websites, pdfs of lecture presentations, will be posted as assignments on the Canvas site. Students are responsible to complete assigned readings before class time.

Optional texts

Books


COURSE FORMAT

The course is divided into the following 8 modules:

1. Introduction to One Health Systems (micro to planetary)
2. Equitable One Health
3. Exposure Connections between systems
4. Comparative health connections between systems
5. Occupational connections
6. Human-Animal-Nature bond
7. Agriculture/Food connections

https://canvas.uw.edu/courses/1612703/assignments/syllabus
To accommodate the schedules of our guest speakers, these modules will be covered in the following order:

1. Introduction to One Health
2. Equitable One Health
3. Exposure Part I
4. Occupation Part I
5. Agriculture Part I
6. Comparative Part I
7. Occupation Part II
8. Biodiversity Part I
9. Human-animal Bond
10. Agriculture Part II
11. Comparative Part II
12. Exposure Part II
13. Biodiversity Part II

SESSION FORMAT

Each module will include lecture sessions that provides an overview of the topic and add information and perspective to that provided by the required readings. An in-class group discussion or activity will follow the lectures, focused on thought-provoking questions that reinforce the material presented in readings and lecture. Technology allowing, the lectures will be recorded and saved.

CLASS SCHEDULE

See the Modules Page (https://canvas.uw.edu/courses/1612703/modules) for a session-by-session schedule of lectures and assignments.

GRADING OPPORTUNITIES

This course is offered on a standard graded basis. The instructor will provide evaluation-grading rubrics (based on the course learning objectives) in advance for all major assignments.

The overall grade in the course is comprised of the following components:

439 students:
1. Reflexivity and access statement: 1% (pass/fail)
2. Homeworks: 6 @ 4% each (24% total)
3. Class participation: 10%
4. Mid-quarter reflection: 15%
5. Group project: 25%
6. Final reflection: 25%

539 students:
1. Reflexivity and access statement: 1% (pass/fail)
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Reflexivity and access statement (1% of total): In Thursday of week 1 you will submit a reflexivity and access statement for a pass/fail grade.

Homeworks (24% total): Homeworks will otherwise be due before class on Tuesday. Four homeworks (4% each) together will cover modules 1-7 (module 8 will be covered in the final), and two additional homeworks (4% each) will be Fresh Banana Leaves check-ins. These homeworks are intended to encourage you to reflect on materials covered in readings and in class; they are not intended to be overly time-consuming.

Class participation (10%): Class participation will be graded at the end of the quarter, on the basis of demonstrating active engagement with the class through in-class discussions and/or the discussion board.

Mid-quarter reflection (15%): You will respond to a prompt by integrating what you have learned from lectures, in-class activities, readings, and your group project. We expect this assignment will take one hour to complete; it will be open for one week.

Final reflection (25%): You will respond to two prompts by integrating what you have learned from lectures, in-class activities, readings, and your group project. We expect this assignment will take two hours to complete; it will be open for one week.
Group Project (25%): This is a five-part project centered around a wicked One Health problem. There is LOTS more information here (https://canvas.uw.edu/courses/1612703/assignments/7815166).

Late assignment policy:
Your instructor and TA are reasonable people, and we understand that sometimes life gets in the way of school work. If you are struggling to submit assignments, please come talk to us as soon as possible (before the delayed item is due) and we will work out a plan together. NOTE this addendum does not require you to disclose personal or medical information that you are not comfortable disclosing.

Homeworks: Your lowest homework grade will be dropped, whether it is a 0 or a 95. Late homeworks will not be accepted because this prevents us from releasing homework answers promptly for your classmates. So think carefully before using this “free” homework early in the quarter-- you might get stuck if you really need it later!

Mid-quarter and final reflection: These times are not flexible-- please make sure you can complete each prompt before it is due.

Class participation: If you elect to use the discussion board, you must make an entry before class starts (8:30 am PT on Tuesdays and Thursdays). This is so the instructor or TA can ask the question you’ve posted to the guest lecturer.

Group project assignments: Late submissions will be penalized by 10% per day

COVID-RELATED EXPECTATIONS
Per UW policy, this class will be conducted in person. You should only register for this class if you can attend in person, or if you meet the criteria for an accommodation from Disability Resources for Students (DRS) or a special arrangement approved by the SPH Office of the Dean that allows you to take the course remotely.

- Please contact UW Disability Resources for Students (DRS) (https://depts.washington.edu/uwdrs/) directly if you feel you may be eligible for an accommodation based on your status as an immunocompromised individual or based on other diagnosed physical or mental health conditions that might prevent you from being able to take classes in-person.
- If you are a student enrolled in a program in SPH, and you are either living with an individual who is immunocompromised, OR you are unable to obtain a visa to travel to the US, you may be eligible for a “special arrangement” that will allow you to take this course remotely. To further clarify, immunocompromised refers to individuals with no/critically weakened immune response to the vaccines. Immune compromised is not the same as underlying health concerns which may lead to a more severe response to COVID. Requests for special arrangements to take the class remotely should have been submitted to and approved by the Students and Academic Services team in the Office of the Dean before the beginning of the quarter.

All UW students are expected to follow state (https://doh.wa.gov/emergencies/covid-19) and local (https://kingcounty.gov/depts/health/covid-19.aspx), and UW COVID-19 policies and recommendations (https://doh.wa.gov/emergencies/covid-19). Please be extra conscientious about masking during the first few weeks of the quarter, because we will have a lot of members of the community traveling and can reasonably expect to see a surge in COVID cases.

If you feel ill or exhibit possible COVID symptoms, you should not come to class. If you need to temporarily quarantine or isolate per CDC guidance and campus policy (https://www.ehs.washington.edu/covid-19-prevention-and-response/covid-19-isolation-guidance), you are responsible for notifying your instructors as soon as possible by email. If you receive a positive COVID-19 test result, you must report to campus Environmental Health & Safety (EH&S) by contacting covidehc@uw.edu or calling 206-616-3344.

Please check your email daily before coming to class. If we need to conduct class remotely because the instructor or a guest speaker is complying with UW policies and unable to attend in person, we will send all registered students an email with a Zoom link for remote instruction. Please also keep an eye out for email communications from the University or the School of Public Health that will inform you of any future changes to policies or guidelines.

Masks in our classroom. While the University is no longer requiring masks, it is our preference that you continue to wear masks in the classroom. This is both out of respect for others who share that classroom space with you, and to reduce class disruption due to COVID transmission.

ADDITIONAL COURSE GUIDELINES

Lectures/overall classroom environment:
1. Listen actively and attentively
2. Ask for clarification if you are confused.
3. Always have your book/readings in front of you or open on your computer.
4. Arrive on time. Let your instructor or TA know in advance if you can’t join
5. Put your phone on silent
6. Use laptops only for legitimate class activities (note-taking, assigned tasks).
7. Avoid leaving early, and if you need to, do so discreetly
8. Try not to distract or annoy your classmates.
In-class discussions:

1. Take responsibility for the quality of the discussion.
2. One Diva, one mic: one person speaks at a time. When the discussion is moving quickly, the instructor will also periodically request pauses in the discussion so that people who need a little more time to process their thoughts have an opportunity to speak.
3. No one knows everything; together we know a lot: each person is coming to the conversation with different levels of lived experience and embodied expertise. We also believe that each person has something to contribute to the conversation. We ask all of you to practice being humble, and look for what we have to learn from each person in the room (we will do the same—we have a lot to learn from you!). Share what you know, as well as your questions, so that others may learn from you. Build on one another’s comments, working toward shared understanding.
4. Move up, move up: If you’re someone who tends to not speak a lot, please move up into a role of speaking more. If you tend to speak a lot, please move up into a role of listening more.
5. We can’t be articulate all of the time: We want everyone to feel comfortable participating, even if you don’t feel you have the perfect words to express your thoughts.
6. Embrace curiosity
7. Acknowledge the difference between intent and impact: it is your instructor’s responsibility to recognize and address microaggressions in the classroom, however if something is said that offends you and the instructor misses it, we invite you to address it immediately if you are comfortable. If you are not comfortable, please speak to your instructor or TA and they will address it.

The above guidelines are in addition to the Classroom Climate guidelines listed below.

CLASS PARTICIPATION

Students are encouraged and expected to attend all class sessions. Class sessions will include lectures and group discussions/activities focused around One Health challenges. Successful participation in this course will require completion of required readings ahead of class, and class participation that includes sharing experiences, and asking and/or answering questions in class.

While we strive to create a classroom climate in which everyone has a space to speak and feels that their contributions are valued, we know that some people may struggle to speak up in this type of environment, or just need more time to process their thoughts. In light of this, when the in-class activity is a facilitated discussion or Q&A with no small group discussion, students will have the option of completing a discussion board prompt for their class participation grade. This prompt will differ for each class session, and must be completed before class begins at 8:30am PT.

The discussion board will not be available for class sessions in which the in-class activity involves a small group discussion (i.e., students can participate without needing to speak in front of the entire class). For these sessions, participation will be assessed based on engagement in the small group discussion.

Policy on Use of Computers and smart phones in course: This course will use interactive technology, and allow the use of computers and smart phones during discussions.

Students are expected not to abuse these privileges by using technology for personal activities such as email and social media during class sessions. Failure to abide by these guidelines will affect the participation grade for a particular student and make the instructor reconsider this policy in the future.

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 478-121) (https://apps.leg.wa.gov/WAC/default.aspx?cite=478-121). We expect you to know and follow the university’s policies on cheating and plagiarism, and the SPH Academic Integrity Policy (https://sph.washington.edu/students/academic-integrity-policy). 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 (https://www.washington.edu/cssc/).

ACCESS AND ACCOMMODATIONS

Your experience in this class is important to us. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. If you have already established accommodations with Disability Resources for Students (DRS), please activate your accommodations via myDRS so we can discuss how they will be implemented in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), contact DRS directly to set up an Access Plan. DRS facilitates the interactive process that establishes reasonable accommodations. Contact DRS at disability.uw.edu (https://uwnetid-mysharepoint.com/personal/brittama_uw.edu/Documents/disability.uw.edu).

Outside of established accommodations with DRS, in week 1 you will be asked to submit a reflexivity and access statement. The latter half of this activity acknowledges that we all have needs and obligations outside of the classroom that may impact how we engage with learning.

RELIGIOUS ACCOMMODATIONS

https://canvas.uw.edu/courses/1612703/assignments/syllabus
Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form](https://registrar.washington.edu/students/religious-accommodations-request).

**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 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.
  

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.

**INCLUSION & DIVERSITY**

Diverse backgrounds, embodiments, and experiences are essential to the critical thinking endeavor at the heart of university education, including at the heart of One Health. Therefore, we expect you to follow the UW Student Conduct Code in your interactions with your colleagues and me in this course by respecting the many social and cultural differences among us. 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, 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.
3. To encourage students with concerns about classroom climate to talk to their instructor, adviser, a member of the departmental or SPH EDI Committee, the Assistant Dean for EDI, or the program's director.

**Bias Concerns**

https://canvas.uw.edu/courses/1612703/assignments/syllabus
We acknowledge from the beginning that all of us, including your instructor, TA and guest lecturers, have a lot to learn about combating racism, sexism, ableism, classism, and other forms of discrimination and bias, and that this learning process will continue throughout our careers. We are committed to supporting and ensuring a respectful, open, positive, inclusive classroom climate. Please reach out to talk with the instructor immediately if you experience disrespect in this class, and I will work to promptly address it in a constructive, educational manner, while assuring privacy.

The Office of the Dean has a student concern policy, a faculty concern policy and standard HR procedures for staff concerns. Our 2018 climate survey states that most people in SPH do not report bias incidents because they do not know where to go. Students are encouraged to report any incidents of bias to someone they feel comfortable with, including instructors, advisers or department staff. They can email dcinfo@uw.edu for immediate follow up. Bias concerns can be anonymously and confidentially reported at this link. Data is collected by the Assistant Dean for EDI and the Director of Program Operations for Student and Academic Services and tracked for resolution and areas are identified for further training. DCinfo@uw.edu is another resource for students with classroom climate concerns, and within the department, options for communicating concerns would be to contact the Graduate Program Coordinator (Dr.Scott Meschke, jmeschke@uw.edu) or Trina Sterry, the Graduate Program Advisor (tsterry@uw.edu).

Pronouns

According to the UW First Year Programs, being an ally is not just about intention, it's also about behavior. 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.

Sexual harassment

Sexual harassment is a form of harassment based on the recipient's sex that is characterized by:

- Unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature by a person who has authority over the recipient when:
- Submission to such conduct is an implicit or explicit condition of the individual’s employment, academic status, or ability to use University facilities and services, or
- Submission to or rejection of the conduct affects tangible aspects of the individual’s employment, academic status, or use of University facilities.
- Unwelcome and unsolicited language or conduct that creates an intimidating, hostile, or offensive working or learning environment, or has the purpose or effect of unreasonably interfering with an individual's academic or work performance.

If you believe that you are being harassed, or have observed harassment, you can report it to SPH using the bias concerns link. The University also has designated offices to help you: SafeCampus; Office of the Ombud; Title IX Investigation Office; and University Complaint Investigation and Resolution Office.