

PUBHEHS 3310: CURRENT ISSUES IN GLOBAL ENVIRONMENTAL HEALTH

3 CREDITS – AUTUMN 2025

- **Mode of Delivery:** in person
- **Course location:** Cunz Hall 180
- **Meeting Date:** Tuesdays and Thursdays
- **Course time:** 12:45 to 2:05 pm

COURSE INSTRUCTOR

- **Name:** Paul Rosile, MPH, PhD (May 2014), R.E.H.S., College of Public Health, Ohio State University
- **Office Location:** N/A
- **Phone Number:** (614) 292-8350
- **Email:** rosile.1@osu.edu
- **Instructor's Office/Student Drop-In Hours:** <https://go.osu.edu/pubhehs3310>
- Wednesday's between 9 am to 10 am **with pre-scheduled appointments (go to [Bookings](#))** or by appointment outside of drop in hours

GRADUATE TEACHING ASSISTANT (GTA)

- **Name:** Monica Shah
- **Email Address:** shah.1464@buckeyemail.osu.edu
- **Office hours:** By appointment
- The GTA assigned to the course will assist with scoring assignments and other duties in course management; however, final grades will be assigned by the professor. **Any questions regarding grading should be directed to the professor and not the TA (See Course Communication).**
- For further details on contacting the instructor and TA, see the "Communication with the instructor and TA" section below.

COURSE DESCRIPTION

In 2016, **13.7 million** people died (approx. size of **130 Ohio State Football Stadiums**) due to environmental factors according to the World Health Organization. This represents 24% of all deaths globally in 2016. This course is designed to introduce students to **the basic environmental factors and processes that impact the health and well-being of humans locally, regionally, and internationally**. To better understand these factors and processes, students will study some of the foundational concepts applied in Environmental Health Science (EHS), such as toxicology, epidemiology, the effect of ecosystem health on human health, Environmental Health (EH) justice, and ethics. We will focus our study on the social determinants of health (conditions in which people are born,

grow, live, work, and age). We will apply the One Health EHS Model (see Figure 1 at the end of this document) to understand the sources.

PREREQUISITES

There are no prerequisites required for this course

COMPETENCIES

BACHELOR OF SCIENCE IN PUBLIC HEALTH (BSPH) COMPETENCIES ADDRESSED

The following BSPH Foundational (Core) and Specialization Competencies addressed in this class are listed below. For more details, see [OSU Public Health](#).

BSPH FOUNDATIONAL (CORE) COMPETENCIES

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

BACHELOR OF SCIENCE IN PUBLIC HEALTH CEPH (COUNCIL ON EDUCATION IN PUBLIC HEALTH) FOUNDATIONAL DOMAINS ADDRESSED

The following BSPH Foundational Domains and Cross-Cutting Concepts addressed in this class are listed below.

CEPH COMPETENCIES (DOMAINS)

- The foundations of biological and life sciences

CROSS-CUTTING CONCEPTS

- Systems thinking.

GE THEME LIVED ENVIRONMENTS

GOAL 1: INSPECT LIVED ENVIRONMENTS AT A MORE ADVANCED AND IN-DEPTH LEVEL THAN IN THE FOUNDATIONS COMPONENT.

Learning Outcomes:

1.1 Engage in critical and logical thinking about the topic or idea of lived environments.

1.2 Conduct an advanced, in-depth, scholarly exploration of the topic or idea of lived environments.

Activities to achieve goal: This goal will be achieved through a combination of in-class or asynchronous discussion boards, flipped classroom learning activities, and independent assignments that require students to critically examine and engage with real-world examples of lived environments. Students will analyze case studies, scholarly readings, and multimedia resources to investigate environmental health issues from multiple perspectives, applying advanced concepts and frameworks introduced in the course. Reflective journals, homework assignments, and projects will provide opportunities for students to integrate evidence-based reasoning with critical and logical thinking in their evaluation of lived environments.

GOAL 2: INTEGRATE APPROACHES TO UNDERSTANDING LIVED ENVIRONMENTS BY MAKING CONNECTIONS TO OUT-OF-CLASSROOM EXPERIENCES WITH ACADEMIC KNOWLEDGE OR ACROSS DISCIPLINES AND/OR TO WORK THEY HAVE DONE IN PREVIOUS CLASSES AND THAT THEY ANTICIPATE DOING IN FUTURE.

Learning Outcomes:

2.1 Identify, describe, and synthesize approaches or experiences as they apply to lived environments.

2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment and creative work, building on prior experiences to respond to new and challenging contexts.

Activities to achieve goal: This goal will be achieved by incorporating experiential learning opportunities that connect classroom knowledge to broader contexts. Students will engage in assignments and projects that draw from their previous coursework, personal experiences, and community observations to deepen their understanding of lived environments. Activities will include reflective journals linking past learning to new concepts, and creative projects, allowing students to synthesize and communicate their insights while developing a reflective awareness of themselves as learners.

GOAL 3:

SUCCESSFUL STUDENTS WILL EXPLORE A RANGE OF PERSPECTIVES ON THE INTERACTIONS AND IMPACTS BETWEEN HUMANS AND ONE OR MORE TYPES OF ENVIRONMENTS (E.G., AGRICULTURAL, BUILT, CULTURAL, ECONOMIC, INTELLECTUAL, NATURAL) IN WHICH HUMANS LIVE.

Learning Outcomes:

3.1 Engage with the complexity and uncertainty of human-environment interactions.

3.2 Describe examples of human interaction with and impact on environmental change and transformation over time and across space.

Activities to achieve goal: Students are introduced to the complexity and uncertainty of human-environment interactions and how these interactions impact environmental change and transformation over time and space with the concepts associated with human causes of climate change and its effect on the environment and human health, and its prevention, mitigation and adaptation. Students will engage in assessments to measure their competency including homework on their understanding of different energy sources including fossil fuels and renewable energy and quizzes specific to the topics of current and future climate change and global warming, climate change prevention, mitigation and adaptation, and Sustainability.

GOAL 4:

SUCCESSFUL STUDENTS WILL ANALYZE A VARIETY OF PERCEPTIONS, REPRESENTATIONS, AND/OR DISCOURSES ABOUT ENVIRONMENTS AND HUMANS WITHIN THEM.

Learning Outcomes:

4.1 Analyze how humans' interactions with their environments shape or have shaped attitudes, beliefs, values, and behaviors.

4.2 Describe how humans perceive and represent the environments with which they interact.

4.3 Analyze and critique conventions, theories, and ideologies that influence discourses around environments.

Activities to achieve goal: Goals 4.1 and 4.2 will be achieved by a homework assignment that requires the student to evaluate their perception of BPA use/exposure in their home environments; and after reading scientific sources about the health impacts of BPA, ask them to reassess their existing exposure and whether they will change their behaviors regarding their exposures. To achieve Goal 4.2, students review lectures and on-line videos about “Trust and Mistrust in Science,” and Environmental Health Ethics and Justice, which teaches them to take a critical view of the conventions, theories, and ideologies that influence discourses around environments and are assessed with specific Quizzes and Homework.

TEXT/READINGS

This course does not require a specific textbook. Assigned Learning Materials, such as scientific publications, journal articles, digital video clips or movies, and applicable website contents/links, are required in most of the modules.

CARMEN

There is a Carmen site for this course: <https://carmen.osu.edu>. All course materials are available via Carmen.

You will need to use Buckeye Pass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (<https://admin.resources.osu.edu/buckeyepass/adding-a-device>)
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click Enter a Passcode and then click the Text me new codes button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application (<https://admin.resources.osu.edu/buckeyepass/installing-the-duo-mobile-application>) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

COURSE STRUCTURE

Each Module will contain a variety of topics, shared via learning materials, such as videos, lectures, readings, articles, and PDFs as well as assignments. They may also include

optional readings and other materials for review and self-study. A roadmap is provided in the Overview of each module that lists the due dates of the assignments.

Modules for this course open on Tuesdays at 12:01 am and close on Mondays at 11:59 pm. There are 8 Modules in the course. All Modules are 2 weeks long, except Module 8 is 1 week and 2 days long. A detailed schedule can be found in the 3310 Course Outline found on the Syllabus page in Carmen.

CLASS FORMAT: HOW THIS COURSE WORKS

- **Mode of delivery:** This course is in-person
- **Pace of activities:** This course is designed with weekly due dates and times. It is strongly encouraged that you plan to complete the material in advance of the due dates. Students who are most successful in the class space out the material to ensure that there is sufficient time to absorb it and to meet the requirements in the module. There will be very few exceptions to the late policy. Managing your schedule and time is an important skill that will serve you well both in this course and in your future career. Late policy exceptions will only be granted under exceptional circumstances and extended emergencies with properly documented evidence. Delaying starting the material until a few hours before the deadline and then having insufficient time to complete it will not result in an extension and may influence the quality of your learning and work. For example, if you have 18 hours of learning per module in this course, it may not be possible to meet course deadlines if you wait until the last minute to meet the module's learning requirements. It is also recommended that you turn in materials on time to ensure that you stay on track with the course and to avoid late penalties. All work is due on Mondays by the close of the module at 11:59 pm, unless otherwise indicated.
- **Module content:** Each module will contain a variety of topics, shared via learning materials, such as videos, lectures, readings, articles, and PDFs) as well as assignments due at the end of that module. They may also include supplemental readings and other materials for review and self-study.
- **Modules have requirements:** You must complete all the requirements for a module to gain access to the next modules. For example, Module 2 cannot be started until Module 1 is completed. You will either need to manually "Mark as Done" or "Submit", "View", "Contribute" or "Score at least _." The requirements are listed under the item. You will have to satisfy all item requirements before you can consider the Module "complete." Modules are considered "complete" once all conditions for module completion have been met.
- **Credit hours and work expectations:** This is a 3-credit-hour course. For a typical Ohio State class in any modality, university policy calls for an average of 1 hour "direct instruction" plus 2 hours "out-of-class" time per week for each 1 credit hour for a "C" grade. This equates to 9 hours of in-class and out-of-class activities per week or 18 hours for a 2-week module. To receive higher than a "C," you will need to invest more than 18 hours per module. A Suggested module Workflow and

Roadmap will be located in the “Overview” of each module showing the estimated instructional time for each assignment in the module.

- **Attendance requirements: Attendance is “mandatory,”** but it is still your choice whether you hold yourself accountable and attend class. This new concept for taking attendance is one that rewards consistent attendance but penalizes frequent absences. [See Attendance and Student Success: Why Attendance is Important to Student Success](#) **You will have the potential to earn a 3% reward added to your final grade % by achieving an attendance score of at least 86%. If your Attendance/Participation score is less than 74% you will be penalized by subtracting 3.0% from your final grade %.**
- Your participation in class answering prompt questions will be used as your grade for attendance, and will be calculated in the Participation/Attendance grade category, weighted as 20% of your final grade (see [Assignment Module](#) for grade categories).

TECHNOLOGY AND TECH SKILLS NEEDED TO BE SUCCESSFUL IN THIS COURSE:

TECHNOLOGY SKILLS NEEDED FOR THIS COURSE

- Basic computer and web-browsing skills
- Navigating Carmen (go.osu.edu/canvasstudent)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)

REQUIRED EQUIPMENT

- **Computer:** current Mac (Mac OSX) or PC (Windows 10+) with high-speed internet connection
- **Calculator:** Students should have access to a scientific calculator that can perform basic arithmetic, square roots, logarithms, and exponentiation. For this class, a program such as Microsoft Excel may suffice.
 - **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

OPTIONAL EQUIPMENT (FOR PARTICIPATION IN OPTIONAL VIRTUAL OFFICE HOURS AND/OR REVIEW SESSIONS)

- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone

REQUIRED SOFTWARE

- **Microsoft 365 Copilot (formerly Office 365)**
All Ohio State students are now eligible for free Microsoft 365 Copilot (formerly Office 365). Full instructions for downloading and installation can be found at go.osu.edu/office365help.

TECHNOLOGY SUPPORT

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** <http://it.osu.edu/help>
- **Phone:** 614-688-4357(HELP)
Email: servicedesk@osu.edu

ASSIGNMENTS/ASSESSMENTS

KNOWLEDGE CHECKS (KCS) = 10% OF GRADE

Each topic has an LM page with readings, videos, articles, and links. After reviewing the LMs, you will complete the KCs related to the lectures and LMs. KCs are open book, not timed, and you have two attempts. **Two drops are permitted.** If you have difficulty with the material, make an appointment to consult the instructor.

HOMEWORK (HWS) ASSIGNMENTS AND CASE STUDIES (CSS) = 20% OF GRADE

HW assignments provide real-life context for environmental health practice. They require independent work unless noted otherwise. HWs are open book, graded with a rubric, and due before 11:59 pm as per the schedule. **One drop is permitted.** CSS apply module topics in real or simulated scenarios. CSS are graded with a rubric. Pay close attention to due dates listed on the course homepage and syllabus. **There are no drops on CSS.**

CREATIVE REFLECTIVE JOURNALS (RJS) = 20% OF GRADE

RJs allow you to share personal and professional experiences related to EH topics. They should be creative and scientifically accurate. RJs are graded with a rubric and due before 11:59 pm as per the schedule. **One drop is permitted.**

SEMESTER CREATIVE PROJECT = 30% OF GRADE

Students will be producing a video or other creative media containing a visual representation with written narratives of what you learned from the **entire course** about Environmental Health from the topics covered in the modules. Detailed rubrics and a due date will be provided.

HOW YOUR GRADE IS CALCULATED

The weighting scheme for the course will be composed of the following items. See additional grading details at the end of this document.

Category	Total Weight of Grade
LMs KCs	10%
Homework Assignments	20%
Semester Creative Project	30%
Creative Reflective Journals	20%
Participation/Attendance	20%
Total	100%

GRADING SCALE

Grade	Percentage	Meaning
A	100-93	Outstanding performance; consistently shown exceptional depth of understanding and/or capacity for creative application of course concepts
A-	92.9-90	Very strong performance with a demonstrated depth of understanding and/or ability to apply course concepts
B+	89.9-87	Performance at an expected level; work is complete and shows solid understanding and application of course concepts
B	86.9-83	Adequate performance: work is complete but shows some limitations in grasp or ability to apply course concepts
B-	82.9-80	Marginally acceptable; work is conducted only to meet minimum course requirements
C+	79.9-77	Indicates only average understanding or application of course concepts
C	76.9-73	
C-	72.9-70	
D+	69.9-67	Below average or failure to meet stated course requirements
D	66.9-60	
E	<60	

CLASS POLICIES

SUGGESTED WORKFLOW

Plan to complete material in advance of deadlines. Successful students space out their work to absorb it fully. A Suggested Workflow Roadmap is on each module's Overview page. Planning helps manage unforeseen circumstances. Late policy exceptions are rare and require documented evidence of exceptional circumstances. Start early to avoid last-minute issues. Each module requires significant effort, detailed on the Overview page. Complete each module to progress to the next.

MISSING ASSIGNMENT DEADLINES, EXCUSED ABSENCES, MAKING UP YOUR WORK, LATE FOR CLASS

Excused absences from class and make-ups are permitted for legitimate reasons such as serious illness, disability, military service, family death, religious observance, academic trips, approved events, or university hearings. Contact the instructor before or no later than three days after the missed deadline with evidence about why you could not meet the deadline. Acceptable evidence would include accommodations from Student Learning and Disability Services, healthcare notes, or other university-provided documentation. If such evidence is provided, you may receive an excused absence and be allowed to submit your missed work within a timeframe acceptable to the instructor. No make-ups for personal reasons like oversleeping, travel, work outside the classroom, or leisure. Exceptions are at the instructor's discretion. Students will be considered **LATE FOR CLASS**

after a 10-minute grace period from the official class start time of 12:45 pm. Attendance points may be lost for being late.

LATE POLICY

Assignments submitted late may incur a 10% daily score reduction. Changes to deadlines due to unforeseen circumstances will be communicated via Announcements. All missed assignments are due by the last day of class unless other arrangements are made.

USE OF ELECTRONIC DEVICES IN CLASSROOM

The expectation for the use of electronic devices in the classroom is that they are used at the request of the instructor for web searches for source material pertinent to classroom discussions or assignments. Any other use (at the instructor's discretion) that is prohibitive or a distraction to learning is not allowed, except for emergency use. Consistent use of electronic devices in the classroom other than active learning will result in the loss of attendance points.

PROVISIONALLY

Please note that this syllabus is tentative and that the instructor reserves the right to make changes at any time, as necessary.

COURSE COMMUNICATION

COMMUNICATION WITH THE ENTIRE CLASS

We will use Canvas for all course management. Check the course homepage daily for announcements, clarifications, and materials. You are required to subscribe to "Announcements," which will notify you via email of a new posting. See [YouTube Video: Quick Tip: Carmen Announcements](#)

COMMUNICATION WITH THE INSTRUCTOR

- Email: Due to high email volume, direct emails to the instructor may not be answered or could be lost.
- Discussion Board: Post questions about course content, policies, or assignments on the Course Content, Policies, or Assignments Discussion Board. The instructor will respond within 1 day, either on the board or through Announcements. Posts after 5 pm on Friday may be answered the following Monday.
- Carmen Inbox: Send messages about grades, academic issues, missed deadlines, or problems due to illness, emergency, or disability accommodation to the instructor via the Carmen Inbox. You can also schedule a Zoom meeting to discuss issues. The instructor will respond within 1 day. Messages after 5 pm on Friday may be answered the following Monday

TECHNICAL HELP PINNED DISCUSSION BOARD

We have worked hard to get out all the technological kinks in this course but occasionally issues related to Carmen and technology will occur. If you have general technology

questions or questions about how to navigate Carmen, you can post your questions here. You will receive a response from the instructional designer or other college support staff within 24 hours during weekdays and 48 hours on weekends. Alternatively, OSU maintains an IT Service Desk that provides 24-hour support, seven days a week, via email [8help@osu.edu], phone [614-688-HELP (4357)], or [self-service chat OSU IT Service Desk](#). To check on the status of an entire system (i.e., Carmen) look at the [OCIO System Status page](#).

ACADEMIC POLICIES

COPYRIGHT STATEMENT

This syllabus and all course materials (e.g., homework assignments, solution keys, course materials) are under copyright by the instructor and cannot be posted elsewhere without written permission.

GENERATIVE AI POLICY

Students are welcome to explore innovative tools and technologies for specific course assignments, including generative artificial intelligence (GenAI) **for assignments where GenAI is permitted in the instructions for specific applications in Assignments (e.g., Assignments may have no Gen AI permitted or different applications of Gen AI depending on the Assignment). GenAI is allowed in all assignments to assist learners with automated grammatical assistance and language acquisition if statements answering #1 and #2 below are included**). When GenAI is allowed in this course, we will generally follow the guidance found on the OSU website: [AI Considerations for Teaching and Learning](#). **Assignments where GenAI is not specifically permitted should be your own original work.**

GenAI can be a helpful resource for drafting creative content, brainstorming ideas, creating a “reverse outline” from a rough draft, and enhancing productivity. Yet it is essential to approach its use thoughtfully and ethically. If you use GenAI for any of your assignments, please include the following statement with each assignment:

1. Application Used: Specify the GenAI application or tool you used (e.g., Copilot, ChatGPT, Claude AI, Gemini).
2. Intended Purpose: Describe the purpose for which you used GenAI (e.g., idea generation, content creation).
3. Quality of Initial GenAI Output: Evaluate the initial output generated by GenAI. For example, was it accurate, biased, coherent, and/or relevant?
4. Iteration and Refinement: Explain how you revised prompts or adjusted parameters to refine the GenAI output. Did you experiment with different input prompts to improve the output?
5. Incorporation in Completed Assignment: Reflect on how you incorporated the GenAI-generated content into your assignment. How did you edit, adapt, or combine it with other ideas?

While GenAI can be a valuable tool, academic integrity remains paramount. You are responsible for developing and articulating your own ideas, so addressing how GenAI contributed to those ideas (as you would for any sources you use) is centrally important to your learning. Attribute GenAI-generated content with proper citations and avoid plagiarism. Additionally, consider the accuracy of information incorporated in your assignment and the ethical implications of using GenAI in educational contexts. You are responsible for ensuring that the information you submit based on a GenAI query does not contain misinformation, unethical content, or violate intellectual property laws.

If I suspect that you have used GenAI on an assignment for which it is prohibited, I will ask you to explain your process for completing the assignment in question. Submission of GenAI-generated content as your own original work is considered a violation of Ohio State's Academic Integrity ([opens in new window](#)) policy and Code of Student Conduct ([opens in new window](#)) because the work is not your own. The unauthorized use of GenAI tools will result in referral to the Committee on Academic Misconduct ([opens in new window](#)).

OFFICE OF STUDENT LIFE: DISABILITY SERVICES

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

MENTAL HEALTH SERVICES

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling [614-292-5766](tel:614-292-5766). CCS is located on the 4th Floor of the Younkun Success Center

and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at [614-292-5766](tel:614-292-5766) and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

RELIGIOUS BELIEFS OR PRACTICES ACCOMMODATIONS

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#). (Policy: [Religious Holidays, Holy Days and Observances](#))

ACADEMIC MISCONDUCT

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and

dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee ([Faculty Rule 3335-5-48.7 \(B\)](#)). For additional information, see the [Code of Student Conduct](#).

INTELLECTUAL DIVERSITY

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

GRIEVANCES AND SOLVING PROBLEMS

A student who encounters a problem related to his/her educational program has a variety of avenues available to seek resolution. According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, you may take your case to the department chairperson. Specific procedures are outlined in Faculty Rule 3335-8-23, the CPH Graduate Student Handbook, and the CPH Undergraduate Student Handbook. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

CREATING AN ENVIRONMENT FREE FROM HARASSMENT, DISCRIMINATION, AND SEXUAL MISCONDUCT

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

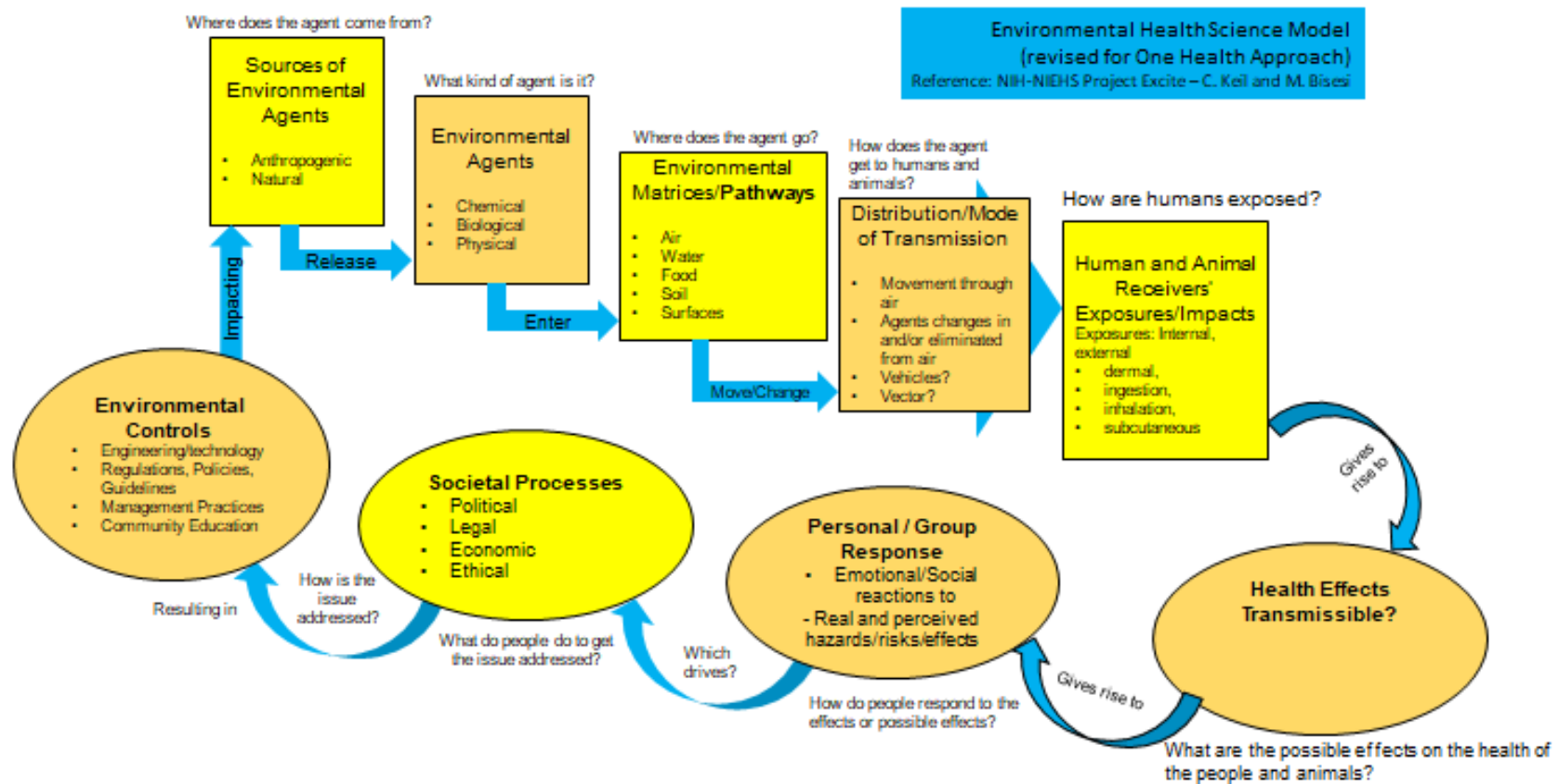
Online reporting form at <http://civilrights.osu.edu/>,
Call 614-247-5838 or TTY 614-688-8605,

Or Email civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Civil Rights Compliance Office to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

FIGURE 1. THE ONE HEALTH EHS MODEL



Course Outline

Module # dates	Topics (May change at the discretion of the instructor. Check the modules in Carmen for topics)	Learning Materials (May change at the discretion of the instructor. Check the modules in Carmen for Required and Optional Learning Materials)
#1 August 26 th to September 8 th	Introduction to Environmental Health Hazards, Exposures, and Risks	• Required Learning Materials (LMs): • https://www.youtube.com/watch?v=DxmjMH600aw • https://www.youtube.com/watch?v=kB0JA7jsqMw • Living conditions - housing and food - Industrial Britain and the people's health, c.1750-c.1900 - OCR B - GCSE History Revision - OCR B - BBC Bitesize • The Environmental Health Sciences - EHS - Model
	Introduction to Environmental Health, The EHS model, Ecology and Ecosystem Health	
	Environmental Epidemiology	• Required LMs: • What is Epidemiology? • Incidence vs Prevalence: Understanding Disease Metrics • The Relationship Between Incidence and Prevalence • Study Designs (Cross-sectional, Case-control, Cohort) Statistics Tutorial MarinStatsLectures • Odds Ratio, Relative Risk, Risk Difference Statistics Tutorial #30 MarinStatsLectures • Case-Control Study and Odds Ratio Statistics Tutorial #31 MarinStatsLectures.
	Environmental Health Ethics and Justice	• Required LMs: • Duty-Based Ethics • Utilitarianism • The Environmental Justice Movement. • Standing on Principle: The Global Push for Environmental Justice • How Many Principles for Public Health Ethics? • Ethics and the Precautionary Principle.
#2 September 9 th to September 22 nd	Environmental Toxicology	• Required LMs: • ATSDR - Environmental Health Resources Self Learning module Toxicology • EPA - Exposure Assessment Tools by Routes

	Toxic Substances	• Required LMs: • Agents Classified by the IARC Monographs • IARC Group 1 carcinogen • Ohio Department of Health - Ohio Sport Fish Consumption Advisory • Columbus, Ohio, DPU Customer Lead Map • ARTICLE: NIH NCBI - Bisphenol A and Human Reproductive Health • NIH NIEHS - Bisphenol A (BPA) • CDC FACTSHEET -Bisphenol A (BPA) • EPA - Risk Management for Bisphenol A (BPA) • FDA - Bisphenol A (BPA): Use in Food Contact Application • WHO UNEP - State of the Science of Endocrine Disrupting Chemicals 2012Links to an external site. • Read only abstract: https://www.sciencedirect.com/science/article/abs/pii/B9780120885237500351 • Read the following section: "Review": • A review of what is an emerging contaminant
#3 September 23 rd to October 6 th	Food Quality, Part 1	• Required LMs: • HACCP Guidance • NRDC in Action All About Alar. • USDA definition of a "local food". • USDA definition of grass-fed beef. • The Facts About The USDA's AMS Grassfed Marketing Claim Recission.. • USDA Certified Organic: Understanding the Basics • What 'No Antibiotics' Claims Really Mean...be sure to open the video • Questions and Answers about Antibiotics in Chicken Production • The National List of Allowed and Prohibited Substances • Bluescreek Farm Meats
	Food Quality, Part 2	• Required LMs: • https://youtu.be/mGuAQS5eFs8 • https://youtu.be/odiEvTOWDNs • https://youtu.be/su0U37w2twS • https://youtu.be/KcfmelhoyRQ • Web page needed to answer KCs: State of Ohio Uniform Food Safety Code • National Outbreak Reporting System (NORS) • CDC foodborne outbreak investigations
	Food Security	• Required LMs: • Addressing Food Security in the US • WFP A Global Food Crisis • Guide to dumpster diving

		• Mid-Ohio Food Bank...Not My Day To Eat
	Zoonotic Diseases Part 1	• Required LMs: • This is a good article to scan if you want to learn about Vector-Borne Disease Emergence and Resurgence on a global scale • Learn how to search site Arbonet • Open Trap and WNV data and experiment with searching for WNV and Aedes albopictus data: • Franklin County Public Health mosquito control program
#4 October 7 th to October 20 th Autumn Break October 16, 17	Zoonotic Diseases Part 2	• Required LMs: • Watch Video: Raccoon Steals Cats' Food (Original) • Raccoon attacking family's cat caught on video • CDC Video: One Health: From Concept to Action • Ohio Department of Health Rabies and Animal Bites • CDC - Influenza in Animals": Avian Flu, Swine Flu
	Air Quality, Part 1	• Required LMs: • National Ambient Air Quality Standards • 2015 Non-Attainment Area for 2015 Ozone Standards • Green Book 8-Hour Ozone (2015) Area Information • EPA, Ohio: Columbus is Nation's First Non-Attainment Area to Meet Ozone Air Quality Standard • Initial List of Hazardous Air Pollutants with Modifications • Open and explore: Toxics Release Inventory (TRI) Program • Search data in your hometown • USEPA OUR NATION'S AIR TRENDS THROUGH 2023 • https://www.epa.gov/criteria-air-pollutants • https://www.epa.gov/pm-pollution • https://www.epa.gov/air-trends/particulate-matter-pm10-trends • https://www.epa.gov/air-trends/particulate-matter-pm25-trends • https://www.epa.gov/so2-pollution • https://www.epa.gov/air-trends/sulfur-dioxide-trends • https://www.epa.gov/co-pollution • https://www.epa.gov/air-trends/carbon-monoxide-trends • https://www.epa.gov/lead-air-pollution • https://www.epa.gov/air-trends/lead-trends • https://www.epa.gov/no2-pollution • https://www.epa.gov/air-trends/nitrogen-dioxide-trends • https://www.epa.gov/ground-level-ozone-pollution • https://www.epa.gov/air-trends/ozone-trends

	Air Quality, Part 2	• Required LMs: • Watch video Beyond the Front Door • Open and explore: World's Air Pollution: Real-time Air Quality Index • Review Table on Pages 4 and 5: Technical Assistance Document for the Reporting of Daily Air Quality – the Air Quality Index (AQI) • Review: What is the U.S. Air Quality Index (AQI)? • Open and explore IQAIR World AQI Ranking Map. • The WHO Air Quality Guidelines • Open website, click on the Layer Map Symbol in the upper right hand corner and then click on which Criteria Air Pollutant (CAP) monitoring station you are interested in: AirData Air Quality Monitors • Open and EPA interactive map of Air Quality, Air Now, click on Criteria Air Pollutant Monitors, Go to map and open monitor for real time CAP data. • Open and explore Pollen and Mold Count from a Regional Air Authority in SE Ohio: Air Quality Agency / Local Air Quality / Pollen and Mold • https://www.igair.com/us/world-most-polluted-countries • Acid Rain Sources • EPA Acid Rain • Acid Rain UNEP East Asia • Air Pollution Control • Output Control: Gasification • Rhodium prices for catalytic converters • Tampa Electric Integrated Gasification Combined-cycle Project
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	Radiation	• Required LMs: • What Does a Nuclear Bomb Explosion Feel Like? • The effects of radiation on our health • Radiation and Health: Go beyond the tiny world of the atom! • Poisoning of Alexander Litvinenko • Radiation Basics: Review Ionizing and non-ionizing radiation, Electromagnetic spectrum, Types of ionizing radiation, Periodic Table, radioactive decay • Protecting Yourself from Radiation: Review time, distance and shielding • Radiation Sources and Doses: Review background radiation, average U.S. doses and sources • Calculate Your Radiation Dose • US Nuclear Reactors • Interactive Map of U.S. Power Plants • Used in HW: United States topographic map • Radioactive Wastes From Coal-fired Power Plants
	Noise Pollution	• Required LMs • CDC: Keep the Volume Down • Everything You Should Know About Sound • Columbus Ohio Community Noise Ordinance • Westerville, Ohio vs Polaris Amphitheater • Noise ordinance • Tracking plane noise in and out of Port Columbus Airport • About Noise-Induced Hearing Loss
#5 October 21 st to November 3 rd	Drinking Water and Health	• Required LMs: • Virtual Drinking Water Treatment Plant Tour • UN SDG 6: Water and Sanitation • National Water Availability Assessment • Safe Drinking Water Information System (SDWIS) Fed Data Warehouse • Population Served by Community Water Systems with No Reported Violations of Health-Based Standards. • Treatment and Control of Drinking Water Contaminants Research. • Case Study: A massive outbreak of gastroenteritis on a Lake Erie island. • Columbus Ohio water conservation program • Columbus Ohio Up Ground Reservoir Plan. • WHO water safety and health

	Water Pollution and Health	• Required LMs: • Where does my sewage go? • ODH Beach Water Standard • Protracted Outbreaks of Cryptosporidiosis Associated With Swimming Pool Use - -- Ohio and Nebraska, 2000 • Lessons from Waterborne Disease Outbreaks • Read Conclusions and Outcomes, The 1993 Milwaukee cryptosporidiosis outbreak • Ohio EPA Recreational Water Quality Criteria • Healthy Watersheds Protection • Columbus Combined Sewer Overflows Interactive map • Sustainable Development Goal (SDG) 6: Clean Water and Sanitation
#6 November 4 th November 17 th Veterans Day no classes November 11 th	Solid Waste Management	• Required LMs • What Happens to NYC's 3.2 million Tons of Trash Big Business • China's Waste Ban Is Causing a Trash Crisis in The U.S. (HBO) • How China Broke the World's Recycling • If You Don't Know, Now You Know - Asian Nations Reject Western Trash The Daily Show • The Great Pacific Garbage Patch Is Not What You Think It Is The Swim • Take a Transfer Station Recycling & Refuse Center Virtual Field Trip • A Tour of the Material Recovery Facility • Waste-to-Energy Virtual Tour • EPA's Cradle-to-Grave Program • SWACO Virtual Tour of the Franklin County Sanitary Landfill • Read what you need to get a sense of the problem of marine litter • THE UNITED STATES FEDERAL STRATEGY FOR ADDRESSING THE GLOBAL ISSUE OF MARINE LITTER • Review page: Facts and Figures about Materials, Waste and Recycling • EPA's current recycling strategy (since the 90's) • "What is RCRA:" Resource Conservation and Recovery Act (RCRA) Overview • What is a Municipal Solid Waste Landfill? • Municipal Solid Waste Transfer Stations • Jambeck, et al., Plastic waste inputs from land into the ocean • DMWM Solid Waste Facilities (Active) Interactive Map
	Hazardous Waste Management	• Required LMs • What is a Hazardous Waste? • Cradle to the grave of hazardous waste • Hazardous Waste Transportation • What is a Hazardous Material and Hazardous Waste • Treatment and recovery of hazardous waste Veolia

	Healthy Homes and Communities, Social Determinants of Health	• Required LMs • Lasting Impact of Cleveland's 'Redlined' Neighborhoods • Introduction to Healthy Communities • Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy? • Zoom to Cleveland Ohio, and Columbus, Ohio and note the racial segregation. Compare to redlining maps in the article above: Interactive Map of US Communities • Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy? • Open map below and click on "Introduction/About." Click on a census tract and find its HOLC grade in the left "1930s" column. Follow that census tract as it transitioned into its current social vulnerability score in the right-hand column. Open the current health outcome data for the census tract and compare those data to other census tracts within that health outcome. Do you notice the 1930s redlined areas have the poorest current health outcomes, unless the census tract made a substantial transition from a higher to a lower vulnerability score: • Not Even Past • Open and familiarize yourself with the document - Healthy Housing Inspection Manual • Review brochure: - HUD Healthy Homes Program • Review Webpage: -CPH Healthy Homes Program
#7 November 18th to December 1st November 26, 27 no classes Thanksgiving November 28 no classes Indigenous Peoples'/Columbus Day	Risk Assessment Part 1 and 2	• Required LMs: • Read Chapter 1, 1.1 to 1.8. Environmental Health Risk Assessment, Guidelines for Assessing Human Health Risks from Environmental Hazards • Read page: Conducting a Human Health Risk Assessment • Read Sections 1.3 and 1.4 Reference Dose (RfD): Description and Use in Health Risk Assessments • For your HW on Risk Assessment: • HAZARD ASSESSMENT OF MICROCYSTINS FROM THE HOUSEHOLD'S DRINKING WATER.pdf • microcystins-support-report-2015.pdf • Environmental Health Risk Assessment, Guidelines for Assessing Human Health Risks from Environmental Hazards • Heinze 1999.pdf

	Introduction to Risk Management	• Required LMs: • Read page from beginning to "Risk Management Guidance Documents" EPA Risk Management • Read Chapter 1, 1.1 to 1.8. Pay particular attention to 1.4 THE DISTINCTION BETWEEN RISK ASSESSMENT AND RISK MANAGEMENT: Environmental Health Risk Assessment, Guidelines for Assessing Human Health Risks from Environmental Hazards
	Risk Communication	• Required LMs: • Crisis & Emergency Risk Communication (CERC) Manual • EPA Risk Communication: The SALT Framework • Read CERC: Psychology of a Crisis Risk Perception, pg. 12 • EPA Risk Communication videos • Risk Communication through the Lens of the SALT Framework • Outrage Causes Hazard Perception: Peter Sandman on Risk Communication • Risk = Hazard + Outrage: Peter Sandman on Risk Communication
	Geospatial Data for EHS	• Required LMs: • This easy to use, interactive mapping application does not require any GIS skills to use and provides ready access to 500+ maps and multiple analysis tools • EnviroAtlas Interactive Map • Ohio EPA Map Gallery
#8 December 2 nd to December 10 th	Trust and mistrust in science	• Required LMs: • Alan Alda: Why you should trust science even if you're a skeptic • Bill Nye Responds to Anti-Science Tweets • Bill Nye Explains the Scientific Method and His Greatest Accomplishment in Life Big Think • Science and Pseudo-Science • Read: 2. The "science" of pseudoscience • Read: 3. The "pseudo" of pseudoscience • 3.1 Non-, un-, and pseudoscience • 3.2 Non-science posing as science
	Climate Change Timelines and Milestones	• Required LMs: • COPs

	Sustainability and Environmental Health	• Required LMs: • The Sustainable Development Goals (SDGs) • The Lazy Person's Guide to Saving the World • Video #1: We the People for The Global Goals • Video #2: UNs SDGs
	Overview of Climate Change and Global Warming	• Required LMs: • Climate 101: Cause and Effect • Weathergirl Goes Rogue • A nostalgic Joni Mitchell Big Yellow Taxi environmental protest (Links to an external site.) song during the 1970's environmental revolution. • 12 Essential Songs for Fighting the Climate Crisis • The 10 Best Protest Songs About Climate Change • Read pages: 2-31, summary for policy makers • Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) • Read: Life in a 'degrowth' economy, and why you might actually enjoy it
	Climate Change Prevention, Mitigation, Adaptation, and Renewable Energy	Required LMs: N/A
	Overview of Sustainability	• Required LMs: • The Sustainable Development Goals (SDG)

Alignment of Competencies with Assessments

Competencies	Assessment 1 Reflections	Assessment 2 Restaurant Inspections Lookup and Analysis
BSPH F6. Communicate public health information, in both oral and written forms,	X	

through a variety of media and to diverse audiences.		
BSPH F7. Locate, use, evaluate, and synthesize public health information.		X