Course Syllabus

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ENVH 406/506 (Fall 2019, 3 credits)

Course Title: Disasters and Public Health

Course Times: MWF 8:30am – 9:20am

Course Locations:

On Mondays and Wednesdays, the course will meet in SOCC 301.

On Fridays, the course will meet in SOCC 303.

Instructor

Nicole Errett, PhD, MSPH, CPH

Lecturer, Environmental and Occupational Health Sciences

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

Office: HSB F 561E

Teaching Assistant

Hannah Schnitzler, DVM

MPH student, Environmental and Occupational Health Sciences

Email: hs229@uw.edu (mailto:hs229@uw.edu)

All email messages will be responded to within 48 business hours.

Office hours: Dr. Errett will hold office hours by appointment. Please send her an email requesting an appointment, with a few times that you are available to meet.

Course website: https://canvas.uw.edu/

Course Description:

This course provides an introduction to different types of public health and environmental health disasters, their consequences, and the role of public health agencies and practitioners in preparedness, response, and recovery. The course will employ an all-hazards, domestic perspective, and explore different types of disasters resulting from natural, biological, chemical, radiological, nuclear, and technological hazards. Through course lectures and readings, case studies, discussion, and debate, students will learn and understand the foundational concepts of the public and environmental health community's role in preparing for, responding to, and recovering from disasters. Through in-course activities and assignments, students will learn to apply these concepts to real-world disasters, and identify, evaluate and synthesize information related to public health disaster response. The course is designed to develop proficiency in analyzing and evaluating the public health response to disasters and identifying solutions and methods for improvement.

Prerequisites: none, junior and senior undergraduates and graduate students only. All students are expected to have an understanding of public health fundamentals. Students not enrolled in a public health or environmental health program should contact the course instructor prior to course commencement with any questions.

Learning objectives:

Upon completing this course, students will be able to:

1. Describe types of disasters and their public health consequences
2. Describe the public health preparedness infrastructure in the United States.
3. Identify the key stakeholders involved in preparedness.
4. Understand the policy, legal and ethical frameworks for U.S. public health preparedness.
5. Explain the role of environmental health and other public health practitioners in an emergency.
6. Identify and evaluate strengths and gaps in the preparedness system and suggest methods for improvement.

In addition, graduate students will be able to:

1. Synthesize information to identify a scientific problem associated with disaster preparedness.
2. Propose a methodological approach to address a disaster preparedness-related scientific problem within realistic time and resource constraints.

Course overview and format:

This course is grounded in student-centered, active learning. At the beginning of the course, students will be introduced to different types of hazards that may cause disasters.

The course will go on to introduce core public health preparedness concepts and issues through readings, lecture, discussion, debate, and other active learning activities. Topics will include:

- Role and responsibility of public health in disasters
- At-risk populations
- Command and control
- Public health legal preparedness
- Ethical issues in disaster

Students will apply these concepts through case study and discussion-based exercises. In small groups, students will identify and assess a public health impact of a recent U.S. disaster, and develop recommendations for improving preparedness. Students will further explore disaster impacts in the *A Fire Story* Book Club assignment. Additionally, students will develop materials for policy makers and the public and present their work to the class.

Graduate students will also develop a short research protocol to address a disaster-related scientific question.

A final exam will be administered at the conclusion of the course.

Course Activities:
Classes will be formatted to include a combination of lecture and discussion. Students will be assigned working groups at the beginning of the course and will sit at tables in their assigned groups during class sessions to easily transition to discussion activities. Groups will be changed following the Book Club discussion. Additional group changes may be made at the discretion of the instructor.

Students may be asked to reflect on questions posed by the instructor with a partner, a small group, or the entire class. Students may be presented with a short video or story and asked to discuss their reactions in small groups. Additional activities include:

Case Studies:
For all case studies, students will be asked to read background material prior to coming to class. Students will then convene in small groups and discuss the questions. Students will be given a suggested schedule to keep their discussion on track. The instructor and teaching assistant will be available to answer student questions. Each group may be asked

to debrief the class about one or more question(s) discussed. Students who have excused absences from case study classes will be required to submit answers to the discussion questions within one week of the case study. Students who attend class and participate in the discussion need not turn in any written assignment.

Discussion Exercise:
Students will be asked to participate in a discussion-based exercise where they will discuss response to a hypothetical disaster. Students will be provided a scenario prior to the course session. In the context of the discussion, students will be asked to solve the problem together based on their learnings throughout the course. Students and the instructional team will participate in a Canvas-based debriefing session at the conclusion of the exercise.

Career Panel Discussion:
At the end of the course, students will have the opportunity to explore diverse career opportunities in public health preparedness through interaction with real-world practitioners in a career panel format. Students will be asked to prepare questions in advance to stimulate discussion with the panel. Panelist biographies will be available on the course website.

Guest Presenters:
When appropriate, a subject matter expert may be asked to present a topic to the course. Students are encouraged to engage these special guests through discussion and questioning. Students may be asked to prepare questions for guest presenters in advance of the course sessions.

Course requirements:

Each student will be expected to:

- Prepare for each class session by completing assigned readings and participate actively in course discussions.
- In a small group, develop and present an infographic on the public health impacts of a disaster caused by an assigned hazard.
- Prepare for and engage in *A Fire Story* book club discussion.
- In a small group, analyze the factors that contributed to one public health impact of a recent disaster, and develop evidence-informed recommendations to enhance preparedness.
- Complete FEMA's Interactive web-based course: IS-100.C: Introduction to Incident Command System and submit the course certificate.
- Take a final exam.
- Develop a Disaster Research Proposal (graduate students only).

Course preparation and participation

Students are expected to actively engage in discussions and participate in exercises and activities. The instructor and teaching assistant will evaluate effort and quantity and quality of engagement. At times, students will be expected to turn in completed discussion guides or activities and/or participate in Canvas board discussions. Students will be expected to ask questions of their peers during their final presentations and of panelists during the Career Panel.

Completing the required reading or viewing associated with the session prior to class can enhance informed engagement. The following book is required:

Fies B. *A Fire Story.* New York: Abrams ComicArts, 2019. (for book club)

A copy of the required book has been placed on reserve in the Health Services Library.

In addition, students will be required to view the following video (screened in class) in preparation for lecture and discussion:

PBS Newshour: Anatomy of a Pandemic. 2009. Available: https://www.pbs.org/video/pbs-newshour-archive-anatomy-of-a-pandemic/

Other required readings and viewings will be provided through the library or on the Canvas Site. In order to promote learning from recent events, many assigned readings are from news media. Many news media outlets use a paywall; in other words, they allow free access to a certain number of articles (i.e., a "free article allowance"), and then require a subscription to access additional articles. Assigned readings are within the free article allowance for any given news media outlet. However, if you are reading articles from the same news media outlets outside of class, you may exceed your personal free article allowance. You may visit the UW Libraries for assistance in accessing news sources for academic purposes: **https://guides.lib.uw.edu/research/news/enews (https://guides.lib.uw.edu/research/news/enews)** . Many news media outlets also make reduced cost subscriptions available to students.

Students are expected to come to class on time, refrain from packing up belongings before class ends, give full respectful attention while either the instructor or another student is speaking, use courteous, respectful language, and keep comments and questions relevant to the topic at hand.

Laptops and electronic devices are permitted in class for course-related academic purposes only. Electronic devices that might create a disruption in class should be turned off.

Students are expected to attend and actively participate in all course sessions. Students participation grade will be calculated out of 100 total possible points. Students will earn 4 points for each course session during which they attend and actively engage and/or participate, with the exception of the two book club sessions (for which participation is assessed as part of the book club assignment grade). As there are 27 non-book club course sessions, students may either not attend or not participate in up to two course sessions and still earn the maximum (100) participation points. In the event that extenuating circumstances require a student to miss or not engage in additional sessions of the course, they should contact the course instructor or teaching assistant immediately to discuss possible accommodations.

Hazards and health infographic

Groups will develop an infographic designed to inform a lay audience about an assigned hazard. Infographics will include a definition of the hazard, ways in which severity/magnitude of the hazard is measured, possible secondary hazards to be aware of, short- and long-term public health impacts, and steps to improve preparedness. Students will present their infographics to the class during an infographic speed-session.

Book Club

Students will be required to read *A Fire Story* during the first half of the course. Discussion questions will be made available on the course website during the first week of class, which will be used to guide a discussion on the book. Students will be expected to complete and submit response(s) to discussion prompts/questions. In class, students will take a short quiz to assess their understanding of key concepts presented in the book and will be expected to actively engage in a two-day facilitated discussion. Students must be present for both days of the discussion to receive full credit.

IS-100.C: Introduction to Incident Command System

Students will also be required to take FEMA's Interactive web-based course: IS-100.**C**: Introduction to Incident Command System. It is freely available online at: **https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c (https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c)** . A certificate of completion must be submitted Canvas before class on 12/1. Note: completion certificates can take up to 24 hours to arrive via email and students should plan accordingly.

Recent Disaster Public Health Impact Assignment

In small groups, students will identify a key public health impact of a disaster that occurred in the past 12 months (topics must be approved by Dr. Errett). Students will assess factors that contributed to the health impact by identifying hazards, vulnerabilities, and exposures. Students will incorporate evidence from the peer-reviewed literature and make recommendations to improve preparedness and reduce the likelihood of a similar public health impact in a future disaster. Students will prepare materials presenting the findings of their assessment and recommendations for policy makers (a briefing memo). Students will also prepare a short presentation of their work and deliver it in class during the final week of the course.

Final Exam

An online final exam will be administered at the end of the course, and include multiple choice, matching, short answer and/or case-based questions. It will focus on application of course concepts to real-world public health preparedness for and response to disasters. Sample questions will be provided in advance. Students may reference course materials provided by the instructor during the exam, but they may not use the internet or other sources outside of those explicitly assigned by the instructor for the purposes of the course.

Disaster Research Proposal (graduate students only)

In small groups, graduate students will also be required to develop a short (3-5 page) research proposal to address a public health disaster-related scientific question.

Extra Credit

Extra credit opportunities may become available periodically throughout the course and will be announced in class by the instructor. The conditions and deadlines for earning extra credit through these opportunities will be announced at the time the opportunity is announced.

Student Evaluation

ENVH 406 (undergraduate students) course grades will be calculated as follows:

10% Course participation

5% Hazard Infographic

20% Book club assignment

5% IS-100.C Certificate

30% Recent Disaster Public Health Impact Assignment

30% Final Exam

ENVH 506 (graduate students) course grades will be calculated as follows:

10% Course participation

5% Hazard Infographic

20% Book club assignment

5% IS-100.C Certificate

25% Recent Disaster Public Health Impact Assignment

10% Disaster research proposal

25% Final Exam

Peer evaluation

The final assignment will be conducted in groups. In order to ensure that all group members provide meaningful and fair contributions to the final assignment, students will give and receive peer evaluations. Students' peer evaluations will be considered in their final assignment grade and their grade may be adjusted at the discretion of the instructor to reflect the quantity and quality of their contributions as described in their peer evaluations. In the event that students receive consistently negative peer evaluations, the instructor will meet with all group members to discuss the evaluations. Pending the result of this investigation, the student may receive no credit for their final assignment.

4.0 Grading Scale

ENVH 406 grades will be converted using the following conversion scale:

Minimum Score	**Grade Point**
≥98	4.0
≥96.9	3.9
≥95.8	3.8
≥94.7	3.7
≥93.6	3.6
≥92.5	3.5
≥91.5	3.4
≥90.4	3.3
≥89.3	3.2
≥88.2	3.1
≥87.1	3.0
≥86	2.9
≥84.9	2.8
≥83.8	2.7
≥82.7	2.6

≥81.6	2.5
≥80.5	2.4
≥79.5	2.3
≥78.4	2.2
≥77.3	2.1
≥76.2	2.0
≥75.1	1.9
≥74	1.8
≥72.9	1.7
≥71.8	1.6
≥70.7	1.5
≥69.6	1.4
≥68.5	1.3
≥67.5	1.2
≥66.4	1.1
≥65.3	1.0
≥64.2	0.9
≥63.1	0.8
≥62	0.7
<62	0.0

ENVH 506 grades will be converted using the following scale:

Minimum Score	Grade Point
≥98	4.0
≥96.4	3.9
≥94.9	3.8
≥93.3	3.7
≥91.7	3.6
≥90.2	3.5
≥88.6	3.4
≥87	3.3
≥85.5	3.2
≥83.9	3.1
≥82.3	3.0
≥80.8	2.9
≥79.2	2.8
≥77.7	2.7
≥76.1	2.6
≥74.5	2.5
≥73	2.4
≥71.4	2.3
≥69.8	2.2
≥68.3	2.1

≥66.7	2.0
≥65.1	1.9
≥63.6	1.8
≥62	1.7
<62	0

Late Policy: 10% of the total possible point value will be deducted from assignments that are submitted within 24 hours after the original due date; 20% of the total possible point value will be deducted from assignments that are submitted between 24 and 48 hours after the original due date; 30% of the total possible point value will be deducted from assignments that are submitted between 48 and 72 hours after the original due date; and 50% of the total possible point value will be deducted from assignments that are submitted between 72 hours and one week after the original due date. Assignments will not be accepted beyond one week after the original due date. This policy does not apply to the final exam, which must be taken and submitted on time.

Inclusive Classroom Environment Statement

The UW School of Public Health seeks to ensure all students are fully included in each course. We strive to create an environment that reflects community and mutual caring. We encourage students with concerns about classroom climate to talk to your instructor, your advisor, a member of the departmental or SPH Diversity Committee and/or the program director. **DCinfo@uw.edu (mailto:DCinfo@uw.edu)** is a resource for students with classroom climate concerns.

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 DRS at 206-543-8924 or **uwdrs@uw.edu (mailto:uwdrs@uw.edu)** or **disability.uw.edu (http://depts.washington.edu/uwdrs/)**. 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/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/)**.

Safety

Call SafeCampus at 206-685-7233 anytime – no matter where you work or study – to anonymously discuss safety and well-being concerns for yourself or others. SafeCampus's team of caring professionals will provide individualized support, while discussing short- and long-term solutions and connecting you with additional resources when requested.

SPH Land Acknowledgment

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 (https://www.washington.edu/studentconduct/)** (WAC 478-120). 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 website.

VeriCite Plagarism Detection will be used for assignments submitted in this course. For more information on VeriCite, please visit: https://itconnect.uw.edu/learn/tools/canvas/canvas-help-for-instructors/assignments-grading/vericite/.

Equity, Diversity and Inclusion

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

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 (mailto:dcinfo@uw.edu)** for immediate follow up. Bias concerns can be anonymously and confidentially reported at this link **https://sph.washington.edu/about/diversity/bias-concerns (https://sph.washington.edu/about/diversity/bias-concerns)**. 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.

Disclaimer

The syllabus, readings, and/or lecture schedule are subject to change. Any changes will be announced in class and posted on Canvas.

Course Assignments: *All assignments should be submitted on Canvas, unless otherwise specified*

Assignment	Due Date
Hazards and Health Infographic	October 11, 2019 at 8:29am. Students should also bring a hard copy of their infographic to present to the class during the infographic speed session.
Book Club	October 29, 2019 at 11:59pm (written assignment due; must be present and engaged in class on October 30, 2019 AND November 1, 2019 to take quiz and earn credit for the discussion portion)
Recent Disaster Public Health Impact Assignment	Topic for approval: November 5, 2019 at 12:00pm Assignment: December 1, 2019 at 11:59pm (students will be expected to present their assignment in class on 12/2 or 12/4; presentation should also be brought to class on a USB drive on both days)
IS-100.C: Introduction to Incident Command System	December 2, 2019 at 11:59pm
Career Panel Discussion Questions	December 5, 2019 at 11:59pm (also bring your questions in hard copy to class to refer to while engaging the panelists)
Disaster Research Proposal (ENVH 506/graduate students only)	December 6, 2019 at 11:59pm

The final exam will be administered online (via Canvas) during a designated window during finals week, and will close at the conclusion of the assigned final exam time (December 10, 2019 at 10:20am). The exam will be timed; students will

have one hour and fifty minutes to complete the exam. As such, students should begin the exam no later than 8:30am on December 10, 2019. Students may opt to take the exam in person during the regularly scheduled final exam time of December 10, 2019 from 8:30-10:20am (location TBD). The instructor and teaching assistant will be present at this time only to answer questions and troubleshoot any problems in real time. While students who opt to take the exam at a different time may email the instructor and/or teaching assistant with questions or issues, it is not guaranteed that they will respond within the window of the student's timed exam. The instructor will only consider reopening the online exam or accepting answers not submitted through the Canvas platform in the event of exceptional circumstances, determined via her discretion.

Course Schedule

Class Session	Readings/Viewings (read/watch prior to class)
Week 1	
September 25, 2019 Session 1: Defining disaster	**Required readings:** Review syllabus *prior* to coming to class. Shoaf KI, Rottman SJ. Public health impact of disasters. *Australian Journal of Emergency Management*. 2000;15(3):58-63. Wulff K, Donato D, Lurie N. What is health resilience and how can we build it? *Annu Rev Public Health*. 2015;36:361-374. doi: 10.1146/annurev-publhealth-031914-122829 [doi].
September 27, 2019 Session 2: Hazards & vulnerabilities	**Required readings:** Office of the Assistant Secretary for Preparedness and Response. At-risk individuals. Public Health Emergency Webpage. Available: https://www.phe.gov/Preparedness/planning/abc/Pages/at-risk.aspx. Mooallem J. We have fire everywhere. The New York Times Magazine. July 31, 2019. https://www.nytimes.com/interactive/2019/07/31/magazine/paradise-camp-fire-california.html
Week 2	
September 30, 2019 Session 3: Natural & human-caused hazards	**Required readings:** Kishore N, Marques D, Mahmud A, et al. Mortality in Puerto Rico after Hurricane Maria. N Engl J Med 2018; 379:162-170. DOI: 10.1056/NEJMsa1803972

	Carroll AE & Frakt A. The Long-Term Health Consequences of Hurricane Harvey. *New York Times*. August 31, 2017. **https://www.nytimes.com/2017/08/31/upshot/the-long-term-health-consequences-of-hurricane-harvey.html?mcubz=3&_r=0 (https://www.nytimes.com/2017/08/31/upshot/the-long-term-health-consequences-of-hurricane-harvey.html?mcubz=3&_r=0)** .

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October 2, 2019 Session 4: Post-Disaster Food Environment: An in-depth case study of New Bern, NC following Hurricane Florence Guest lecturer: Dr. Lauren Clay, D'Youville College	**Required readings:** TBD
October 4, 2019 Session 5: "The Big One" Case Study	**Required readings**: Geologic Hazards and the environment. Washington State Department of Natural Resources website. 2017. Available: **http://www.dnr.wa.gov/programs-and-services/geology/geologic-hazards-and-environment (http://www.dnr.wa.gov/programs-and-services/geology/geologic-hazards-and-environment)** *Explore and review all subpages:* Seattle Hazard Explorer. August 2017. Available: **http://seattlecitygis.maps.arcgis.com/apps/MapSeries/index.html?appid=0489a95dad4e42148dbef571076f9b5b (http://seattlecitygis.maps.arcgis.com/apps/MapSeries/index.html?appid=0489a95dad4e42148dbef571076f9b5b)** . Schulz K. The Really Big One. *The New Yorker*. July 20, 2015. **https://www.newyorker.com/magazine/2015/07/20/the-really-big-one (https://www.newyorker.com/magazine/2015/07/20/the-really-big-one)** .

Week 3

October 6, 2019 Session 6: *Anatomy of a Pandemic* screening	**Required readings:** Bell BP, Damon IK, Jernigan DB, et al. Overview, control strategies, and lessons learned in the CDC response to the 2014-2016 ebola epidemic. *MMWR Suppl*. 2016;65(3):4-11. doi: 10.15585/mmwr.su6503a2 [doi].
October 9, 2019 Session 7: *Anatomy of a Pandemic* Discussion and Emerging Infectious Diseases	**Required readings:** National Institutes of Health (US); Biological Sciences Curriculum Study. NIH Curriculum Supplement Series [Internet]. Bethesda (MD): National Institutes of Health (US); 2007. Understanding Emerging and Re-emerging Infectious Diseases. Available from: **https://www.ncbi.nlm.nih.gov/books/NBK20370/ (https://www.ncbi.nlm.nih.gov/books/NBK20370/)**
October 11, 2019 Session 8: Infographic Speed Session	**Required readings:** None **Due:** Hazards and Health Infographic (one per group, submit on Canvas and bring hard copy to class for presentation)
Week 4	
October 14, 2019 Session 9: Environmental & occupational health considerations in disasters	**Required readings:** Guarino B. The health dangers from Hurricane Harvey's floods and Houston's chemical plants. September 1, 2017. **https://www.washingtonpost.com/news/to-your-health/wp/2017/08/29/the-health-consequences-to-expect-from-hurricane-harveys-floods/?utm_term=.982a6a1c2709 (https://www.washingtonpost.com/news/to-your-health/wp/2017/08/29/the-health-consequences-to-expect-from-hurricane-harveys-floods/?utm_term=.982a6a1c2709)** . Bethea C. Flooding from Hurricane Florence Threatens to Overwhelm Manure Lagoons. *The New Yorker.* September 15, 2018. **https://www.newyorker.com/news/dispatch/hurricane-florence-hits-eastern-north-carolina-the-cesspool-of-the-united-states (https://www.newyorker.com/news/dispatch/hurricane-florence-hits-eastern-north-carolina-the-cesspool-of-the-united-states)** . Pierre-Louis K, Popovich N, Tabuchi H. Florence Floodwaters Breach Coal Ash Pond and Imperil Other Toxic Sites. *The New York Times.* September 17, 2018.

	https://www.nytimes.com/interactive/2018/09/13/climate/hurricane-florence-environmental-hazards.html?smid=fb-nytimes&smtyp=cur (https://www.nytimes.com/interactive/2018/09/13/climate/hurricane-florence-environmental-hazards.html?smid=fb-nytimes&smtyp=cur) .
October 16, 2019 Session 10: One Health considerations in disasters Guest lecturer: Hannah Schnitzler, DVM, UW DEOHS MPH Student	**Required readings:** Stauffer, KE & Conti L. One Health and emergency preparedness. Vet Rec. (https://www.ncbi.nlm.nih.gov/pubmed/25359746) 2014 Nov 1;175(17):422-5. doi: 10.1136/vr.g5246.
October 18, 2019 Session 11: Wildfire Discussion Exercise	**Required readings:** Wildfire exercise scenario
Week 5	
October 21, 2019 Session 12: Risk communication Guest lecturer: Dr. Meredith Li-Volmerr, Risk Communication Specialist, Public Health-Seattle and King County	**Required readings:** Handouts distributed in class/posted on Canvas
October 23, 2019	**Required readings:** Risk communication activity background materials

Session 13: Risk communication activity	
October 25, 2019 Session 14: TBA	**Required readings:** TBA
Week 6	
October 28, 2019 Session 15: Health Emergency and Disaster Risk Management Policy and Practice: Philippine Perspective Guest speaker: Ronald Law, MD, MPH, Chief Preparedness Division, Philippines	**Required readings:** TBA -
October 30, 2019 Session 16: Book Club Part 1	**Required readings:**
November 1, 2019 Session 17: Book Club Part	**Required readings:** Watch**:** Ruderman, M. “Writing Briefing Memos.” Johns Hopkins Bloomberg School of Public Health, Baltimore, MD Lecture.

2 & Final Assignment distribution	Available: http://media.mchtraining.net/navigator/presentations/Writing_Briefing_Memos_M_Ruderman/ (http://media.mchtraining.net/navigator/presentations/Writing_Briefing_Memos_M_Ruderman/) Briefing memo checklist
Week 7	
November 4, 2019 Session 18: Ethical issues in disasters	**Required readings:** Persad G, Wertheimer A, Emanuel EJ. Principles for allocation of scarce medical interventions. *Lancet*. 2009;373(9661):423-431. doi: 10.1016/S0140-6736(09)60137-9 [doi].
November 6, 2019 Session 19: Five Days at Memorial Case Study	**Required readings:** Fink S. The Deadly Choices at Memorial. *New York Times Magazine.* August 25, 2009. http://www.nytimes.com/2009/08/30/magazine/30doctors.html?pagewanted=all (http://www.nytimes.com/2009/08/30/magazine/30doctors.html?pagewanted=all) .
November 8, 2019 Session 20: Ethical issues case study Guest Lecturer: Onora Lien, Executive Director, Northwest Healthcare Response Network	**Required readings:** None
Week 8	
November 11, 2018 NO CLASS: VETERAN'S DAY	

November 13, 2018 Session 21: Public health legal preparedness	**Required readings:** Moulton AD, Gottfried RN, Goodman RA, Murphy AM, Rawson RD. What is public health legal preparedness? *J Law Med Ethics*. 2003;31(4):672-683. Selected Federal Legal Authorities Pertinent to Public Health Emergencies. Centers for Disease Control and Prevention. August 2014. Available: **https://www.cdc.gov/phlp/docs/ph-emergencies.pdf** **(https://www.cdc.gov/phlp/docs/ph-emergencies.pdf)**
October 25, 2019 Session 22: Surveillance & rapid health needs assessment Guest speaker: Haylea Hannah, MPH, UW Department of Epidemiology PhD student	**Required readings:** Malilay J, Heumann M, Perretta D, et al. The Role of Applied Epidemiology Methods in Disaster. *Am J Public Health.* 2014; 104(11): 2092–2102. doi: 10.2105/AJPH.2014.302010
Week 9	
November 18, 2019 Session 23: Public Health Emergencies in Seattle & King County Guest lecturer: Carina Elsenboss, Director of Public Health Preparedness, Public Health - Seattle & King County	**Required readings:** Explore and review all subpages of Public Health Seattle & King County's Emergency Preparedness website: **http://www.kingcounty.gov/depts/health/emergency-preparedness.aspx** **(http://www.kingcounty.gov/depts/health/emergency-preparedness.aspx)**

November 20, 2019 Session 24: Healthcare roles & responsibilities Guest lecturer: Danica Little, University of Washington Medical Center Emergency Manager	**Required readings:** Robles F. Puerto Rico's Health Care is in Dire Condition, Three Weeks After Maria. *New York Times.* October 10, 2017. **https://www.nytimes.com/2017/10/10/us/puerto-rico-power-hospitals.html (https://www.nytimes.com/2017/10/10/us/puerto-rico-power-hospitals.html)** Fink S & Blinder A. Houston's Hospitals Treat Storm Victims and Become Victims Themselves. *New York Times.* August 27, 2017. **https://www.nytimes.com/2017/08/28/us/hurricane-harvey-houston-hospitals-rescue.html (https://www.nytimes.com/2017/08/28/us/hurricane-harvey-houston-hospitals-rescue.html)** .
November 22, 2019 Session 25: Disaster Research Response (DR2) Guest Lecturer: Dr. Aubrey Miller, National Institute of Environmental Health Sciences	**Required readings:** Lurie N, Manolio T, Patterson AP, Collins F, Friedan T. Research as a part of public health emergency response. **N Engl J Med. (https://www-ncbi-nlm-nih-gov.offcampus.lib.washington.edu/pubmed/23534565)** 2013 Mar 28;368(13):1251-5. doi: 10.1056/NEJMsb1209510. Horney JA, Rios J, Cantu A, Ramsey S, Montemayor L, Raun L, Miller A. Improving Hurricane Harvey Disaster Research Response Through Academic-Practice Partnerships. **Am J Public Health. (https://www-ncbi-nlm-nih-gov.offcampus.lib.washington.edu/pubmed/31318601)** 2019 Sep;109(9):1198-1201. doi: 10.2105/AJPH.2019.305166. Epub 2019 Jul 18.
Week 10	
November 25, 2019 Session 26: Command & Control, UW Emergency Operations Center Tour	**Required readings:** None

MEET FOR CLASS AT THE UW TOWER AT 8:25AM	
November 27, 2019 **No in person class.** In lieu of class, students must complete FEMA's Interactive web-based course: IS-100.C: Introduction to Incident Command System	**Required readings:** Take FEMA's Interactive, web-based course: IS-100.**C**: Introduction to Incident Command System. Available: **https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c (https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c)** A certificate of completion must be submitted Canvas and will count towards your course participation grade. Note: completion certificates can take up to 24 hours to arrive via email and students should plan accordingly.
November 29, 2019 NO CLASS: Thanksgiving Holiday	**No required readings.**
Week 11	
December 2, 2019 Session 27: Final presentations	**No required readings.**
December 4, 2019	**No required readings.**

Session 28: Final presentations	
December 6, 2019 Session 29: Career Panel	**Required readings:** Read career panelist biographies (on Canvas).

Course Summary:

Date	Details	
Fri Oct 11, 2019	Hazards and Health Infographic (https://canvas.uw.edu/courses/1320249/assignments/5030369)	due by 8:29am
	Hazards and Health Infographic Assignment Reference List (https://canvas.uw.edu/courses/1320249/assignments/5030371)	due by 8:29am
	Session 8, Fri: Infographic Speed Session (https://canvas.uw.edu/courses/1320249/assignments/4962796)	due by 8:30am
Tue Nov 5, 2019	Public Health Impact of Recent Disaster Assignment - Topic Submission (https://canvas.uw.edu/courses/1320249/assignments/4962769)	due by 12pm
Sun Dec 1, 2019	ENVH 406/506 Final presentation (https://canvas.uw.edu/courses/1320249/assignments/4962756)	due by 11:59pm
Mon Dec 2, 2019	FEMA IS-100.C Course (https://canvas.uw.edu/courses/1320249/assignments/4962764)	due by 11:59pm
Wed Dec 4, 2019	Final assignment peer eval form (https://canvas.uw.edu/courses/1320249/assignments/4962765)	due by 11:59pm
Fri Dec 6, 2019	Session 29: Career Panel Discussion (https://canvas.uw.edu/courses/1320249/assignments/4962767)	due by 3:30pm
Thu Dec 12, 2019	Disasters and Public Health Final Exam (https://canvas.uw.edu/courses/1320249/assignments/4962752)	due by 4:23pm
	Disaster Research Proposal (ENVH 506/graduate students only) (https://canvas.uw.edu/courses/1320249/assignments/4962754)	
	ENVH 406 Book Club Assignment (https://canvas.uw.edu/courses/1320249/assignments/4962757)	
	ENVH 406 Final Exam (https://canvas.uw.edu/courses/1320249/assignments/4962758)	

Date	Details
	ENVH 406 Public Health Impact of Recent Disaster Assignment (https://canvas.uw.edu/courses/1320249/assignments/4962759)
	ENVH 506 Book Club Assignment (https://canvas.uw.edu/courses/1320249/assignments/4962760)
	ENVH 506 Disaster Research Proposal Research Question (https://canvas.uw.edu/courses/1320249/assignments/4962761)
	ENVH 506 Final Exam (https://canvas.uw.edu/courses/1320249/assignments/4962762)
	ENVH 506 Public Health Impact of Recent Disaster Assignment (https://canvas.uw.edu/courses/1320249/assignments/4962763)
	Participation (https://canvas.uw.edu/courses/1320249/assignments/4962768)
	Practice Quiz Final (https://canvas.uw.edu/courses/1320249/assignments/4962753)
	Roll Call Attendance (https://canvas.uw.edu/courses/1320249/assignments/4962770)
	Session 1, Weds: Defining Disaster (https://canvas.uw.edu/courses/1320249/assignments/4962781)
	Session 10, Weds: One health considerations in disasters (https://canvas.uw.edu/courses/1320249/assignments/4962771)
	Session 11, Fri: Wildfire Discussion Exercise (https://canvas.uw.edu/courses/1320249/assignments/4962772)
	Session 12, Mon: Risk communication (https://canvas.uw.edu/courses/1320249/assignments/4962773)
	Session 13, Weds: Risk communication activity (https://canvas.uw.edu/courses/1320249/assignments/4962774)
	Session 14, Fri: Mental and Behavioral Health & Psych First Aid (https://canvas.uw.edu/courses/1320249/assignments/4962800)
	Session 15, Mon: Health Emergency and Disaster Risk Management Policy and Practice: Philippine Perspective (https://canvas.uw.edu/courses/1320249/assignments/4962776)
	Session 16, Weds: Book Club Part 1 (https://canvas.uw.edu/courses/1320249/assignments/4962777)
	Session 17, Fri: Book Club Part 2 & Final assignment distribution (https://canvas.uw.edu/courses/1320249/assignments/4962778)
	Session 18, Mon: Ethical issues in disasters (https://canvas.uw.edu/courses/1320249/assignments/4962779)
	Session 19, Weds: Five Days at Memorial Case Study (https://canvas.uw.edu/courses/1320249/assignments/4962780)
	Session 2, Fri: Hazards and vulnerabilities (https://canvas.uw.edu/courses/1320249/assignments/4962790)
	Session 20, Fri: Ethical issues case study (https://canvas.uw.edu/courses/1320249/assignments/4962782)
	Session 21, Weds: Public health legal preparedness (https://canvas.uw.edu/courses/1320249/assignments/4962783)
	Session 22, Fri: Surveillance & rapid health needs assessment (https://canvas.uw.edu/courses/1320249/assignments/4962775)

Date	Details
	Session 23, Mon: Public Health Emergencies in Seattle and King County (https://canvas.uw.edu/courses/1320249/assignments/4962787)
	Session 24, Weds: Disaster Research Response (DR2) (https://canvas.uw.edu/courses/1320249/assignments/4962786)
	Session 24, Weds: Healthcare roles and responsibilities (https://canvas.uw.edu/courses/1320249/assignments/4962789)
	Session 26, Mon: Command & Control, UW Emergency Operations Center Tour (https://canvas.uw.edu/courses/1320249/assignments/4962785)
	Session 27, Mon: Final presentations (https://canvas.uw.edu/courses/1320249/assignments/4962801)
	Session 28, Weds: Final presentations (https://canvas.uw.edu/courses/1320249/assignments/4962802)
	Session 3, Mon: Natural and human-caused hazards (https://canvas.uw.edu/courses/1320249/assignments/4962791)
	Session 4, Weds: Post-Disaster Food Environment: An in-depth case study of New Bern, NC following Hurricane Florence (https://canvas.uw.edu/courses/1320249/assignments/4962799)
	Session 5, Fri: "The Really Big One" case study (https://canvas.uw.edu/courses/1320249/assignments/4962793)
	Session 6, Mon: Anatomy of a Pandemic screening (https://canvas.uw.edu/courses/1320249/assignments/4962794)
	Session 7, Weds: Anatomy of a Pandemic Discussion and Emerging Infectious Diseases (https://canvas.uw.edu/courses/1320249/assignments/4962795)
	Session 9, Mon: Environmental & occupational health considerations in disasters (https://canvas.uw.edu/courses/1320249/assignments/4962797)