

The Design of Disaster

Course Description

Natural disasters and environmental catastrophes have long garnered significant public attention. In addition to their direct effects disasters—both “natural” and human-caused—may provide insight into human relationships with physical landscapes and environments. This is because landscapes reflect, maintain, and recreate social systems: where people are and how they prepare for disaster (or don’t) are closely linked to systems of power, governance, and decision-making. Accordingly, the study of disasters and hazards has developed over the past few decades from being primarily focused on their biophysical drivers to emphasize the importance of social systems. The need to develop adequate mitigation and adaptation strategies in light of the potential for global or local disasters—such as climate change, hurricane, earthquake, and tsunami—requires an interdisciplinary effort involving fields as diverse as environmental risk analysis, social justice, political economy, art, film, literature and others. This class will explore how natural disaster, including the risk of future disaster, is experienced throughout the world, with a particular emphasis on how human systems and decisions made about our built environment “design the disasters of the future.” To this end we will adopt an interdisciplinary approach based in the social sciences that critically examines the logic of disaster planning and the creation of built environments, while highlighting elements of the practical planning and decisional processes that cause and exacerbate disaster.

Importantly, this class was designed as a collaboration between environmental studies and design/architecture; some architecture students will be taking a studio during winter term that builds off this seminar. The hope is that this class will provide a space for cross-pollination between social theory and the practice of design and that our collaboration will be mutually beneficial across disciplines. However, there is no requirement or expectation that anyone have prerequisites or prior skills in either design/architecture or the social sciences.

Student Learning Objectives

By the end of this course, students will be able to:

- Define and distinguish between a natural event, a natural disaster, and a human-caused environmental disaster.
- Explain how different approaches to environmental risk have been developed in concert with our changing understanding of disasters.
- Describe the historical development of natural hazards research from a field focused primarily on the geophysical reality of disasters to an embrace of social factors, and articulate proposals for further development of the field.
- Compare and articulate how mitigation and adaptation planning incorporates basic principles of landscape decision-making, including legal and design-based elements.
- Evaluate case studies to identify the various natural and social factors that contribute to the severity of natural disasters, either in advance of the event or during the response.
- Analyze real world disaster risk using a variety of methods in order to understand the strengths and weaknesses of planning and preparedness regimes.
- Propose solutions to natural and human-caused environmental disasters that take account of a variety of social, infrastructural, planning, and design features.

Course Literature

There is one required book for this course: Naomi Klein (2018). *The Battle for Paradise. Puerto Rico Takes On The Disaster Capitalists*. Chicago: Haymarket Books. It is available at the Duck Store, as well as elsewhere.

Other course materials will be available in electronic format on Canvas. If you would like paper copies to read or borrow please let me know and I will put some on hold in the Environmental Studies Office. If you have trouble downloading any of the articles, email dshtob@uoregon.edu. The amount of reading for this course will be significant; please plan ahead to ensure that readings are completed on time. If you are experiencing any trouble with the reading, please bring it to my attention as soon as possible.

Assignments

Written assignments should be completed in 12 point Times New Roman font and double-spaced. A good guideline is that, while I do not grade based on paper length, papers that are short of the required word or page count are probably insufficiently detailed to earn a good grade. I also encourage you to include your own opinion and insight into the issues that we discuss, but take care to ensure that these complement (and do not replace) analysis of course concepts. I also encourage you to review the questions presented carefully, as well as grading rubrics posted for each assignment on Canvas, to ensure that you are answering the question(s) presented.

In-class Participation and Reading Quizzes

Attendance will be taken each day, and will comprise a part of the in-class participation grade. Students must come prepared to ask questions, engage the reading materials and actively participate in class discussions to receive full credit for in-class participation.

During many class sessions, students will participate in small group discussions about the reading and must be prepared to engage these materials in an analytical and substantive way with other students. From time to time throughout the term, pop quizzes will be given that are focused on the assigned reading. These quizzes are intended to ensure that students come to class prepared and to allow students who may be less comfortable speaking in a classroom environment a chance to evidence their preparedness. Quiz scores will comprise 50% of the participation grade but you may drop your lowest quiz score.

Short Essays.

The short essays (at least 1,500 words) will critically reflect upon assigned readings, drawing out themes, trends, connections, and potential weaknesses in these readings. These essays must be refined, substantive, and polished papers that make clear arguments supported by detailed evidence. These exercises are designed to facilitate critical reading (analysis), to connect diverse themes, and to practice making arguments in writing. Your essays must go beyond summaries of the readings to connect with and analyze course concepts from both the lectures and assignments.

First Short Essay. The first short essay will examine the geophysical and social drivers of one recent natural disaster, outline the primary historical and contemporary factors that drove disaster outcomes, and make suggestions about how negative outcomes may have been reduced or mitigated. Your essay should refer to at least 3 course readings and at least one outside source (each properly cited in accordance with a standard citation format of your choice). However, there is no maximum number of sources that you may use. This essay is due through VeriCite on Canvas at 11:59 pm on November 5.

Second (Interview) Short Essay. The interview short essay will begin with you conducting an interview (about 30-45 minutes) with any Oregonian about the threat of the Cascadia Subduction Zone earthquake and tsunami (although if you have another disaster or location in mind please let me know and we can consider it). Your interviewee must differ from you in race, gender identity, class, ethnicity, mobility status, or some other axis of potential marginalization (if you are unsure about this, please ask) because part of the purpose of this interview is to understand how perceptions of disaster may be different in groups or communities other than your own. Your interview questions and topics should be guided by course concepts, including reading and class lectures, but remember to let the interviewee's perspective guide the interview as well. While you do not have to transcribe the interview, you should record it (remember to get permission for both the interview and the recording!) so you can listen to it later while you think about your paper.

Your essay should be at least 1,500 words and should use course concepts to frame and explain what you heard in your interview, including statements, ideas, or perspectives that correspond with concepts we have covered, as well as anything that surprises you. You are encouraged to use direct quotes from your interview if they fit in the paper,

but be careful about using too many quotes (they should illustrate, not predominate). The key in this paper is to connect what we have learned to what you hear in your interview, while being conscious and respectful of different perspectives. This essay is due through VeriCite on Canvas at 11:59 pm on November 21.

Fishbowl Paper.

You will work in a group of four or five to enact an in-class debate or “Fishbowl” on the topic of how we should best think about and prepare for disaster. Your group will submit a “Fishbowl Paper” of at least 1,500 words summarizing your arguments for your position and against the other groups’ positions on the day of the event. Fishbowl Papers may be less formal than essays, may be in bullet point format for ease of use and simplicity during the debate, and should still identify sources but may use less formal citation than the paper (i.e. “According to the *New York Times* (September 21, 2017), one of the many negative effects of Hurricane Maria was...”). Fishbowl papers should use at least 10 sources, but these may be summarized by some group members for the entire group. Due October 24 at the beginning of class.

Research Paper

Students will write a research paper on a topic related to an issue on the course syllabus. Research papers will identify a clear research question and provide a critical analysis of issues facing countries and/or communities in their efforts to address past, present, or future disasters. In addition to the social and geophysical factors examined at the beginning of the course, this effort should include and examine at least two “real world” disaster preparedness, planning and design documents (for example, a local or state earthquake or hurricane planning guide, a guide for architects about how to comply with disaster standards, or a summary of government meetings about preparedness: additional examples to be given in class). Rather than just summarizing an issue, research papers should critically analyze the issue in question and use course concepts to present ideas to rethink or improve our approach to this issue. You may choose to explore issues facing a particular community or environment, or look more broadly at a common issue facing multiple communities and environments. If you take the latter approach, however, I encourage you to narrow it down to a particular region of the globe. Your final research paper must be submitted through VeriCite on Canvas by 5 pm on December 5.

- **Research Paper Proposal and Prospectus Statement due 10/10 by 11:59 pm on Canvas.** Research paper proposals should include a proposed research question, and a prospectus statement that is approximately 150 words giving a justification for, and overview of, what you plan to explore in your research paper.
- **Research Paper Update due 11/12 by 11:59 pm on Canvas.** The research paper update should include a list of each source you intend to use for your final paper, as well as a short 2-3 sentence summary of the source and how you intend to use it in your paper. While you are allowed to change your sources after submitting the research paper update as your research progresses, this should outline the sources you will use and the general argument of your paper.
- ****Draft paper due 11/21 (paper or electronic copy).** *Students can submit an optional draft paper by November 21 and will receive comments by November 28. This draft will not be graded. You are highly encouraged to submit a draft for comments.*
- **Final research paper due 12/5 by 5 pm on Canvas.** Students will submit a 10-12 page double-spaced research paper. The paper should have citations but they will not be counted in the page limit. Final research papers should include at least 8 sources but may include additional sources. At least 3 of the sources must be peer reviewed and at least 2 should be “real world” documents (as described above). Citations must be in a recognized professional format (APA, MLA etc.) For more information on properly using APA format, visit: <http://www.apastyle.org>.

Note on Papers and Assignments

If you have any questions or concerns about the assignments for this class I highly encourage you to contact me as soon as possible, either in person after class or in office hours, or by email. The last thing I want is undue stress due to confusion over how to complete an assignment. Because of this I have an open door policy about questions.

Grading and Due Date Summary

Grading Summary	% of grade	Due Date
Participation (including reading quizzes)	15%	Duration of term
Research Paper Proposal & Abstract	5%	10/10 by 11:59 pm on Vericite on Canvas.
Research Paper Update	5%	11/12 by 11:59 pm on Vericite on Canvas.
First Short Paper	15%	11/5 by 11:59 pm on Vericite on Canvas.
Second (Interview) Short Paper	15%	11/21 by 11:59 pm on Vericite on Canvas.
Fishbowl Debate	5%	10/24 at the beginning of class.
Fishbowl Paper	10%	Debate will take place 10/24 during class.
Final Research Paper	25%	Final Paper Due 12/5 by 5 pm on Vericite on Canvas. <i>Draft paper (optional) due 11/21.</i>

Final Grade Breakdown:

%	Grade	%	Grade
94 +	A	74-76	C
90-93	A-	70-73	C-
87-89	B+	67-69	D+
84-86	B	64-66	D
80-83	B-	60-63	D-
77-79	C+	59-	F

Course Policies and Procedures

Communication: If you have questions, concerns or thoughts about the class, you should email me at dsh Tob@uoregon.edu or plan to come by and talk with me during office hours. If you cannot make my scheduled office hours just email me so we can find a mutually convenient time to meet. In the subject of all emails, please include ENVS411 and please email me about any assignment at least 48 hours before any due date for that assignment. This will ensure that I look at your email and have an opportunity to respond in a timely manner.

Assignments: Assignments are due electronically on the assigned date. All assignments (except for the Fishbowl Paper) must be posted to VeriCite on Canvas. Late papers and assignments will be penalized one-third of a letter grade (for example, B- to C+) per day. Extensions on papers or rescheduling of exams will occur only under extraordinary circumstances that must be approved beforehand. If you feel that you will be unable to complete an assignment on time, please contact me as soon as possible. While I am happy to discuss assignments after class, due to confidentiality issues I cannot discuss grades after class. All requests to reconsider a grade must be made in writing and should summarize why you believe the assigned grade is inappropriate given the assignment and your work product.

Attendance: Please arrive on time and be prepared to participate fully in the class. Please let me know in advance (by email) if you will be arriving late or need to leave early. Attendance is a critical part of your participation in the course given the emphasis placed on class participation and small group interactions. Please inform me *ahead of time* (or as soon as possible after the fact) if you will be absent from a class and we can work out a way to accommodate the absence. Students will be allowed no more than three unexcused absences for any reason, unless a serious illness or other emergency is documented.

In-class Participation: You are expected to prepare for, attend and actively participate in classes. The course content will include discussion of a wide range of cultural, political, and social issues related to many parts of the world. As such, it will require critical thinking, sensitivity, and mutual respect in all of our discussions. Being prepared for each class means completing the readings, which directly relates to that day's class discussion. Accordingly, the quality of your learning is directly related to the quality of your preparation.

Technology: To reduce distraction and increase classroom participation, cell phones are not to be used during class. Please contact us by email or during office hours if you would like to request an exception. Please be sure to turn

your cell phones to silent before class begins. You may bring your computers into the classroom to take notes. However, we ask that you be highly respectful to your fellow students and us by only using your computer for class purposes during the class period. I reserve the right to ask students to stop using computers in class if they are a distraction in any way.

Citing Sources: For all written assignments, please cite your sources according to a commonly used standard. You can find links to commonly used style guides on the UO library website at: <http://libweb.uoregon.edu/guides/citing/index.html>. The Purdue University OWL resources listed in week 10 and the APA style guide mentioned above are also helpful resources.

UO Affirmation of Community Standards: The University of Oregon community is dedicated to the advancement of knowledge and the development of integrity. In order to thrive and excel, this community must preserve the freedom of thought and expression of all its members. The University of Oregon has a long and illustrious history in the area of academic freedom and freedom of speech. A culture of respect that honors the rights, safety, dignity and worth of every individual is essential to preserve such freedom. We affirm our respect for the rights and well-being of all members. We further affirm our commitment to:

- Respect the dignity and essential worth of all individuals.
- Promote a culture of respect throughout the University community.
- Respect the privacy, property, and freedom of others.
- Reject bigotry, discrimination, violence, or intimidation of any kind.
- Practice personal and academic integrity and expect it from others.
- Promote the diversity of opinions, ideas and backgrounds, which is the lifeblood of the university.

The University of Oregon provides specific codes of conduct and how academic misconduct will be addressed. Please be aware of the following policies:

- [University of Oregon Student Conduct Code](#)
- [Academic Misconduct](#)
- [Plagiarism](#)

Syllabus Statement Regarding Sexual Violence

The University of Oregon is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic and dating violence and gender-based stalking. If you (or someone you know) has experienced or experiences gender-based violence (intimate partner violence, attempted or completed sexual assault, harassment, coercion, stalking, etc.), know that you are not alone. UO has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more. Please be aware that all UO employees are required reporters. This means that if you tell me about a situation, I may have to report the information to my supervisor or the Office of Affirmative Action and Equal Opportunity. Although I have to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need. If you wish to speak to someone confidentially, you can call 541-346-SAFE, UO's 24-hour hotline, to be connected to a confidential counselor to discuss your options. You can also visit the SAFE website at safe.uoregon.edu.

Encouraging Inclusive Learning Environments/Accessibility

The University of Oregon is working to create inclusive learning environments. Please notify us if there are aspects of the instruction or design of this course that result in disability related barriers to your participation. You are also encouraged to contact the Accessible Education Center (formerly Disability Services) in 164 Oregon Hall at 346-1155 or uoaec@uoregon.edu, as you may need to provide documentation from the AEC for any accessibility issues.

Week	Class #	Date	Topic(s)	Required Reading	Assignments and Activities
1	1	9/24	Defining Disaster. This course introduction will focus on what is meant by disaster or hazard and present a central question: do we need to reimagine our relationship with catastrophic events?	No reading. Please read syllabus carefully.	
	2	9/26	Disasters as Focusing Events. Catastrophic environmental change has a tendency to focus our attention on the existence of social issues and our own lack of preparedness. Yet why does it sometimes seem like we are unprepared?	Schulz (2015). The Really Big One. <i>The New Yorker</i> . http://www.newyorker.com/magazine/2015/07/20/the-really-big-one	
2	3	10/1	Space, Place, and Social Systems. How spaces are designed and built reflect social structures, how social structures reflect our built environment, and how denial is socially developed.	Gottdeiner (1993). A Marx for Our Time: Henri Lefebvre and the Production of Space. <i>Sociological Theory</i> , 11(1): 129-134. Norgaard (2009). Cognitive and Behavioral Challenges in Responding to Climate Change. 3-5, 26-37.	Fish Bowl groups assigned
	4	10/3	Place, Resilience, and Adaptation. An introduction to the basics of resilience of adaptation discourse, including some potential weaknesses.	Cutter <i>et al.</i> (2008). A place-based model for understanding community resilience to natural disasters. <i>Global Environmental Change</i> , 18:598-606. Tierney (2015). Resilience and the Neoliberal Project. <i>American Behavioral Scientist</i> 59(10): 1327-1342.	
3	5	10/8	Architectural Design and Disaster. Guest speaker Professor Erin Moore.	Readings TBD.	
	6	10/10	Advanced Social Approaches to Understanding Natural Hazard Risk. In recent years there have been increasing calls to integrate social theory with infrastructure and design-based approaches.	Tierney (2007). From the Margins to the Mainstream? Disaster Research at the Crossroads. <i>Annual Review of Sociology</i> 33:503-525.	Research Paper Proposal and Prospectus Statement due

4	7	10/15	Local Approaches to Disaster: Community Needs. The unique characteristics of a community and place influence the experience of past, present, or future disaster. How does contemporary resilience and adaptation theory capture local needs (or fail to do so)?	Flint and Luloff (2005). Natural Resource-Based Communities, Risk, and Disaster: An Intersection of Theories. <i>Society and Natural Resources</i> 18(5): 399-412. Campanella (2006). Urban Resilience and the Recovery of New Orleans. <i>Journal of the American Planning Association</i> , 72(2): 141-46.	
	8	10/17	Local Approaches to Disaster: Using Mapping. What factors influence community interaction with natural disaster? How do you understand the intersection between disaster and landscape?	Elliott & Clement (2017). Natural Hazards and Local Development: The Successive Nature of Landscape Transformation in the United States. <i>Social Forces</i> 96(2): 851-875. Peace Corps Participatory Analysis for Community Action guidebook, available at http://files.peacecorps.gov/multimedia/pdf/library/PACA-2007.pdf . pp. iv – vii, 101-122.	Participatory Methods Activity. Mapping disaster: an introduction to the use of spatial analysis in disaster.
5	9	10/22	Social Approaches to Understanding Disaster: Power and Privilege. Systems of power and privilege—as well as histories—can strongly influence how disaster is designed in advance	Elliott and Pais. (2006). Race, Class, and Hurricane Katrina. <i>Social Science Research</i> 35: 295-321.	Activity. The law and practice of redlining, finance, and the case of New Orleans.
	10	10/24	Fishbowl Debate.	No reading.	Fishbowl Paper Due.
6	11	10/29	Natural Disasters and Displacement: An Introduction. Natural disasters may displace populations, but how? Beyond important topics like climate migration what are some effects of disasters on communities and housing?	Elliott and Howell. (2017). A Longitudinal Analysis of Natural Hazards' Unequal Impacts on Residential Instability. <i>Social Forces</i> 95(3): 1181-1207 http://www.theatlantic.com/science/archive/2016/09/flat-earth-truthers/499322/ (Optional, though encouraged. We will discuss in class and read excerpts.)	In Class Activity/ Discussion: The importance of skepticism in disaster thinking.
	12	10/31	Natural Disasters and Environmental Justice: Disaster By Design? Disasters and post-disaster planning are sometimes used opportunistically. Some of the negative effects of disasters on populations are not the result of accident or poor planning but may be intended.	Klein (2018). <i>The Battle for Paradise. Puerto Rico Takes On The Disaster Capitalists</i> . Chicago: Haymarket Books. (entire book)	

7	13	11/5	Disaster by Design: Wealth, Aid, and Relief. How do disaster opportunism and structures of disaster relief combine to exacerbate inequality? Who benefits from disasters, and why is this important?	Howell and Elliott (in press). Damages Done: The Longitudinal Impacts of Natural Hazards on Wealth Inequality in the United States. <i>Social Problems</i> .	First Short Essay Due Activity. Zoning, legal landscape design, and environmental justice.
	14	11/7	Disaster by Design: Law and Municipal Management. How legal, financial, and infrastructural decisions can yield adverse consequences. An introduction to how municipal financialization can lead to disastrous environmental consequences.	The Crisis in Flint Goes Deeper Than the Water https://www.newyorker.com/news/news-desk/the-crisis-in-flint-goes-deeper-than-the-water Lead-Laced Water In Flint: A Step-By-Step Look At The Makings Of A Crisis. https://www.npr.org/sections/thetwo-way/2016/04/20/465545378/lead-laced-water-in-flint-a-step-by-step-look-at-the-makings-of-a-crisis <u>ACLU and ABA Documents:</u> http://www.aclumich.org/key-issue/flint-water-crisis https://www.americanbar.org/groups/young_lawyers/publications/the_101_201_practice_series/water_crisis_flint_michigan.html	Activity. Legal analysis of ACLU and ABA activities in Flint.
8	15	11/12	Disaster by Design: Land Use. How seemingly benign land use planning decisions influence disaster outcomes and may be abused after a disaster.	Maly, Kondo, and Banba (2016). Post-Katrina and Sandy: Post-disaster Land Use Management After Hurricane Katrina and Superstorm Sandy in the United States. <i>Land Use Management in Disaster Risk Reduction</i> . pp. 79-106 Oorbeek (2013). The Perfect Storm: Sandy, New Jersey Land Use, and the National Flood Insurance Program. pp. 1-31.	Research Paper Update Due.
	16	11/14	Disaster by Design: Building and Rebuilding. How building and rebuilding strategies influence disaster outcomes and may be abused after a disaster.	Gunewardena and Schuller. <i>Capitalizing on Catastrophe: Neoliberal Strategies in Disaster Reconstruction</i> . Chapter 2. pp. 17-27. BondGraham (2007). The New Orleans that Race Built: Racism, Disaster, and Urban Spatial Relationships. <i>Souls: A Critical Journal of Black Politics, Culture, and Society</i> , 9(1): 4-18.	

9	17	11/19	Case Study 1: Return to the Cascadia Subduction Zone Earthquake and Tsunami. How has your thinking about the CSZ earthquake and tsunami evolved over the course of this class?	Oregon Public Broadcasting, Oregon Field Guide special, “Unprepared.” https://www.youtube.com/watch?v=-n6FxBNNOC4 (it starts about 30 seconds in) Short Interview Project: Asking Oregonians about the Cascadia Subduction Zone earthquake and tsunami.	Methods Activity: Qualitative analysis of participant interview.
	18	11/21	Case Study 2: To come, as decided upon by class interests and suggestions.	Reading TBD.	<i>Second (Interview) Short Paper Due.</i>
10	19	11/26	Final Research Paper Review and Prep. This class is an opportunity to revisit the case studies, to review the requirements for the final paper, and to work through final paper ideas together. There will be an opportunity to workshop papers in groups and develop ideas.	Reading TBD Purdue University Online Writing Lab Research and Citation Resource. https://owl.english.purdue.edu/owl/section/2/ Purdue University Online Writing Lab Expository Essay Resource: https://owl.english.purdue.edu/owl/resource/685/02/	Methods Activity: Content analysis of “Unprepared” documentary.
	20	11/28	Course Recap. Lessons learned, thoughts for the future, and ways to become and remain involved in the future.	Neil Smith (2006). There’s No Such Thing as a Natural Disaster. http://blogs.ubc.ca/naturalthazards/files/2016/03/Smith-There’s-No-Such-Thing-as-a-Natural-Disaster.pdf	
11		12/5	Final Research Paper Due by 5 pm through VeriCite on Canvas.		