

Environmental Response

Community, Environment and Planning CEP 302, Winter Quarter 2021

Class: Mondays and Wednesdays, 8:30 – 10:20 am, Remote (Zoom)

Instructor: Prof. Jan Whittington
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Office hours: Prof. Whittington
Mondays 10:30 am – 11:30 am
Or by appointment

Michael Tobey
To be Determined (TBD)
Or by appointment

Course Webpage: <https://canvas.uw.edu/courses/1432047>

Course Objective: A foundation for understanding environmental crises and societal responses.

Cross-disciplinary readings and reflective analyses examine the history, sources, scale, dimensions, and complexities of environmental crises. Readings and assignments rely on a selection of authoritative sources to develop grounded perspective in environmental science and ecological literacy, in general and with respect to several crises experienced at global and local scales. To ground perspectives in environmental science, the course begins with an overview of the scientific method, the workings of the scientific community, and science in regulation, policy, and the courts. Catastrophic events, including hazards, climate change, and the sixth extinction, are introduced as both individual and collective action problems, bringing a community-based perspective to environmental crisis and recognizing the unequal impacts of environmental crises on society.

In exploring the nature of catastrophic environmental crises it is important to realize that human behavior is often both a cause of crisis and a barrier to overcome if a crisis is to be addressed. In other words, to understand societal responses to environmental crises requires an understanding of the many forms of bias in human decision-making, as well as the threats to collective action presented by existing social and political organization. Assignments apply behavioral economics and explore environmental science and policy for the purposeful identification of effective means for developing societal responses to environmental crises. Reviews of examples of collective action inform our perspectives of what works, what does not work, and why. In this way, students research theoretical knowledge and generate practical knowledge to improve our situation.

Texts: Kuhn, Thomas. *The Structure of Scientific Revolutions*. University of Chicago, 1970.
Kimmerer, Robin. *Braiding Sweetgrass*. Milkweed Editions, 2013.

Recommended: [The Chicago Manual of Style](#) (17th edition).

Structure: This is a mid-sized lecture class with assignments. The course is divided into three sections, which result in three main assignments. In addition, many small writing tasks (5-10 points each) are assigned throughout the course to be completed either in Canvas or in class, including opportunities to earn points for participation in class discussions. Papers and presentations will be due as stated on the course website. Late work will not be accepted. Grading is based on an accumulation of points (not on a curve), as follows.

Requirements and Points Possible (400 points = 4.0 grade point):

In Class/Canvas Activities.....	100	Group M9 Project.....	100
Group Climate Project.....	100	Individual NEPA Project.....	100

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

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

Course Information and Communication: Course content and communication are through Canvas. Canvas is not the best system we have seen, but we are using it because it is governed by a formal agreement (a service level agreement) between the UW and the company that owns Canvas, which assists UW in managing the software in ways that protect students, including compliance with FERPA, the U.S. law that protects student privacy. Check these features regularly:

- **Canvas Modules** for access to course content. See also Canvas Home and Syllabus pages. Modules are used to organize assignments, discussions, G-suite, quizzes, and other course content.
- **Zoom** for links to class meetings, Professor office hours, and TA office hours. All times shown are in Seattle, Washington, USA, Pacific Standard Time (Winter Quarter). Make sure that you are logged in to Zoom through your UW net ID (your UW email address) in order to access this class. If you are logged in with your UW account, your use of Zoom is protected by a formal service level agreement with the UW and is FERPA compliant To sign in to Zoom using your UW account, visit: <https://washington.zoom.us/> (for more information about UW Zoom’s use of data, see <https://itconnect.uw.edu/connect/phones/conferencing/zoom-video-conferencing/uw-zoom-faq/privacy/>). Please note that as a UW student, you also have an account on Zoom for your own use.
- **Zoom** to access recordings of class meetings (not office hours). Regular class meetings will be recorded on Zoom and available for viewing after class from the Canvas Zoom page.
- **G-Suite**, such as Google Docs and Google Presentations, for activities in class. Make sure that you are logged in to Google through your UW net ID (your UW email address) in order to access these materials. If you access Google using your UW account, your use of G-Suite products will also be governed by a formal agreement (a service level agreement) between UW and Google (Alphabet), to comply with FERPA and protect privacy.
- **Piazza** to discuss the subject matter of this course, or to ask questions of your Professor and TA that are about the content or requirements of the course. If you want to ask a question only for the Professor and TA (instructors in Piazza) then choose the option of posting a private question. You can also choose to post anonymously to your classmates. Do not use Piazza for confidential communications. Piazza is not the best system we have seen, but we are using it because it is FERPA compliant, which means that the company that owns Piazza has agreed to protect your privacy as a student, and the contents that you share with Piazza are not available to search engines. Piazza has a feature that allows you to opt-in to send your information to private companies, and we **do not** recommend using this feature. If you don’t want to receive messages from Piazza, you can change the settings.
- **Canvas Announcements** for messages that apply to all students. Check regularly.
- **Canvas Grade** page for points earned on each assignment. Note that the percentages in Canvas are not correct, and do not rely on those to estimate your grade.
- **Canvas Inbox** to email your TA and Professor. Provide a reason for the message in the subject line. Use Canvas Inbox for all confidential communications or to protect privacy.

Grading: Graded assignments in this course are organized into four categories. All grades are a result of the sum of point scores, as follows. Use of outside websites or expertise (such as Course Hero) is **strictly prohibited**.

In-Class/Canvas Activities:

Activities Announced in Class (conscientious effort to participate)	100 total possible 5 each (keep top 8 scores)
Canvas Discussion (your own unique effort to understand and apply the material)	5 points each (keep top 10)
Piazza Participation (ask and answer questions meaningful to the course)	5 points each folder (keep top 2)

Group M9 Project:

Group Paper Grade	100 total possible 80 points
Peer Review	20 points

Group Climate Change Project:

Part 1	100 total possible 20 points
Part 2	30 points
Part 3	30 points
Peer Review	20 points

Individual NEPA Project:

Part 1	100 total possible 20 points
Part 2	40 points
Part 3	40 points

Academic Integrity: The University takes academic integrity very seriously. Behaving with integrity is part of our responsibility to our shared learning community. If you're uncertain about if something is academic misconduct, ask me. I am willing to discuss questions you might have. Acts of academic misconduct may include but are not limited to:

- Cheating (working collaboratively on quizzes/exams and discussion submissions, sharing answers and previewing quizzes/exams)
- Unauthorized collaboration (working with each other on assignments)
- Plagiarism (representing the work of others as your own without giving appropriate credit to the original author(s)). This constitutes plagiarism whether it is intentional or unintentional. I advise each of you to read a style manual in order to learn how to avoid plagiarism. **Accurate use of references and citation style, in conformance with the Chicago Manual of Style (17th Edition), will constitute a significant portion of writing and presentation grades.**

Cheating, unauthorized collaboration, and plagiarism may lead to disciplinary action by the University against the student who submitted the work. Students found to have engaged in academic misconduct may receive a zero on the assignment. The University of Washington Student Conduct Code (WAC 478-121) defines prohibited academic and behavioral conduct and describes how the University holds students accountable as they pursue their academic goals. Concerns about these or other behaviors prohibited by the Student Conduct Code will be referred for investigation and adjudication by the Associate Dean for Academic Affairs, the College of Built Environments. More information can be found online at <https://www.washington.edu/studentconduct/>.

COVID-19: The health and safety of the University of Washington community are the institution's priorities. Until otherwise stated, **face coverings** are required per [UW COVID Face Covering Policy](#):

- Indoors when other people are present and in all public and common areas, such as lobbies, hallways, stairways, restrooms and elevators
- Outdoors when keeping a six-foot distance from others may not be possible

This includes all classrooms and buildings/public spaces on each of the UW campuses. If you physically can't wear a mask, you choose not to wear a mask, your mask isn't appropriate/sufficient, or if you aren't wearing a mask properly (covering both your nose and mouth), you **CANNOT** be in the classroom and will be asked to leave. If you have a medical condition or health risk as outlined in the [UW COVID Face Covering Policy](#), you may request an accommodation. Please contact Disability Resources for Students office **BEFORE GOING TO CLASS** at uwdrs@uw.edu (Seattle). Please review the UW Environmental & Safety face covering requirements and frequently asked questions and compliance with social distancing protocols. <https://www.ehs.washington.edu/face-covering-requirements>

Students Taking the Course from Outside the US: Faculty members at U.S. universities – including the University of Washington – have the right to academic freedom which includes presenting and exploring topics and content that other governments may consider to be illegal and, therefore, choose to censor. Examples may include topics and content involving religion, gender and sexuality, human rights, democracy and representative government, and historic events. If, as a UW student, you are living outside of the United States while taking courses remotely, you are subject to the laws of your local jurisdiction. Local authorities may limit your access to course material and take punitive action towards you. Unfortunately, the University of Washington has no authority over the laws in your jurisdictions or how local authorities enforce those laws. If you are taking UW courses outside of the United States, you have reason to exercise caution when enrolling in courses that cover topics and issues censored in your jurisdiction. If you have concerns regarding a course or courses that you have registered for, please contact your academic advisor who will assist you in exploring options.

Campus 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.

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 \(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/\)](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 \(https://registrar.washington.edu/students/religious-accommodations-request/\)](https://registrar.washington.edu/students/religious-accommodations-request/).

Course Schedule

Date	Topic	Readings
Jan 4 1:1	Introduction	Syllabus Bullard, D. D., Gardezi, M., Chennault, C., & Dankbar, H. (2016). Climate Change and Environmental Justice: A Conversation with Dr. Robert Bullard. <i>Journal of Critical Thought and Praxis</i> , 5 (2). https://doi.org/https://doi.org/10.31274/jctp-180810-61
Jan 6 1:2	Science	Descartes, Rene. <i>Discourse on the Method of Rightly Conducting One's Reason and of Seeking Truth in the Sciences</i> . 1637. (Parts One and Two, ebook available at UW Libraries, also at https://www.gutenberg.org/files/59/59-h/59-h.htm) Popper, Karl. <i>The Logic of Scientific Discovery</i> . 1959 (any edition). (Chapter III, Parts 12-15; Chapter IV, Parts 21 and 22) "Who gets to breathe clean air in New Delhi?" <i>The New York Times</i> , December 17, 2020. https://www.nytimes.com/interactive/2020/12/17/world/asia/india-pollution-inequality.html Watkins, Derek. "How We Reported on Pollution in New Delhi Through Two Children" <i>The New York Times</i> , December 24, 2020. https://www.nytimes.com/2020/12/24/insider/india-measuring-pollution.html
Jan 11 2:1	Science	Kuhn, Thomas. <i>The Structure of Scientific Revolutions</i> . University of Chicago, 1970. (Chapters II, III, IV and VI) Latour, Bruno. <i>Science in Action</i> . Harvard University Press. 1987. (Introduction and Chapter 1) Bromwich, Jonah Engel. "The darkest timeline." <i>The New York Times</i> , December 26, 2020. https://www.nytimes.com/2020/12/26/style/climate-change-deep-adaptation.html Bendell, Jem. "Deep adaptation: a map for navigating climate tragedy" Institute for Leadership and Sustainability (IFLAS) Occasional Papers Volume 2. University of Cumbria, Ambleside, UK. (Unpublished) (Read the first 8 pages, up to "Looking Ahead") http://insight.cumbria.ac.uk/id/eprint/4166/1/Bendell_DeepAdaptation.pdf
Jan 13 2:2	Science Assign M9	Kuhn, Thomas. <i>The Structure of Scientific Revolutions</i> . University of Chicago, 1970. (Chapters VIII, X, XII) Kimmerer, Robin. <i>Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants</i> . Milkweed Editions, 2013. (Pages 156-166, Mishkos Kenomagwen: The Teachings of Grass) Bullard, Robert D. 1999. "Dismantling Environmental Racism in the USA." <i>Local Environment</i> 4 (1): 5. doi:10.1080/13549839908725577
Jan 18 3:1	M9 Earthquake (No Class)	Schulz, Kathryn. "The Really Big One" <i>The New Yorker</i> , July 20, 2015. http://www.newyorker.com/magazine/2015/07/20/the-really-big-one Whittington, Jan. "Invest to withstand the test of time: Capital planning for high-impact earthquakes" <i>Washington Journal of Environmental Law and Policy</i> 7 (2): 444-454. https://www.law.washington.edu/wjelp/issues/default.aspx?v=7 University of Washington, Natural Hazards. "M9". Seattle, WA: College of the Environment, University of Washington. https://hazards.uw.edu/geology/m9/ [The main text of About, People, Research, Workshops] For your assignment: Samson, Alaine (ed). <i>The Behavioral Economics Guide</i> 2018. BehavioralEconomics.com. https://www.behavioraleconomics.com/the-be-guide/the-behavioral-economics-guide-2018/ [Selected Behavioral Science Concepts, pages 121-163 (an A-Z Glossary); the Introduction to the guide is recommended, but optional]
Jan 20 3:2	M9 Earthquake	Oreskes, Naomi. "Science and public policy: what's proof got to do with it?" <i>Environmental Science & Policy</i> 7, no. 5 (2004): 369-383. Fiorino, Daniel. <i>Making Environmental Policy</i> . University of California Press. 1995. (Chapter 2) Repetto, Robert. <i>Punctuated Equilibrium and the Dynamics of US Environmental Policy</i> . Yale University Press, 2006. (Chapter 1) Recommended: Field, Edward H., Thomas H. Jordan, Lucile M. Jones, Andrew J. Michael, Michael L. Blamphie, et al. "The Potential Uses of Operational Earthquake Forecasting" <i>Seismological Research Letters</i> , 87 (2A, March/April 2016): 313-322. doi: 10.1785/0220150174, https://hazards.uw.edu/geology/m9/publications/
Jan 25 4:1	Climate Change M9 Due Assign CC	Rich, Nathaniel. "Losing Earth" <i>New York Times</i> , August 1, 2018. (Part 1.1 – 1.8) https://www.nytimes.com/interactive/2018/08/01/magazine/climate-change-losing-earth.html#main (Also available through UW Libraries, online access through Gale Cengage Literature Resource Center, http://link.galegroup.com/apps/doc/A548925001/LitRC?u=wash_main&sid=LitRC&xid=04e6d5a3). Scripps Institute of Oceanography, CO ₂ . "Keeling curve lessons" Scripps CO ₂ Program, Accessed: August 1, 2018. https://scrippsco2.ucsd.edu/history_legacy/keeling_curve_lessons.html National Research Council. 1979. <i>Carbon Dioxide and Climate: A Scientific Assessment</i> . Washington, DC: The National Academies Press. https://doi.org/10.17226/12181 [Foreword (vii-viii), Preface (ix-x), 1 Summary and Conclusions (1-3), 2 Carbon in the Atmosphere (4-6)]
Jan 27 4:2	Climate Change	Rich, Nathaniel. "Losing Earth: The decade we almost stopped climate change: A tragedy in two acts" <i>The New York Times Magazine</i> , August 5, 2018. (Part 2.1 – 2.8, Epilogue) https://www.nytimes.com/interactive/2018/08/01/magazine/climate-change-losing-earth.html#main (Also

		available through UW Libraries, online access through Gale Cengage Literature Resource Center, http://link.galegroup.com/apps/doc/A548925001/LitRC?u=wash_main&sid=LitRC&xid=04e6d5a3). Hardin, Garrett. "The tragedy of the commons." <i>Science</i> 13 December 1968, 162 (3859): 1243-1248. Kimmerer, Robin. <i>Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants</i> . Milkweed Editions, 2013. (Pages 303-309, Windigo Footprints)
Feb 1 5:1	Climate Change CC 1 Due	United Nations Climate Change. "What is the Paris Agreement?" United Nations Framework Convention on Climate Change (UNFCCC), 2018. https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement [Read the main text of the website, and download and read the Authentic Texts of the Paris Agreement] Intergovernmental Panel on Climate Change (IPCC), 2018. <i>Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty</i> [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P. R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp. https://www.ipcc.ch/sr15/ [read "Summary for Policymakers", sections A, B, and D] Recommended: C. Le Quéré, R. M. Andrew, J. G. Canadell, S. Sitch, J. I. Korsbakken, et al. 2016. Global Carbon Budget 2016. <i>Earth System Science Data</i> , 8:605-649. doi:10.5194/essd-8-605-2016. https://www.earth-syst-sci-data.net/8/605/2016/essd-8-605-2016.pdf (compare this scientific paper to its supporting infographic, available at: http://www.globalcarbonproject.org/carbonbudget/18/infographics.htm)
Feb 3 5:2	Climate Change	United Nations. <i>The Emissions Gap Report 2019</i> . United Nations Environment Program, 2019. [Review the Interactive Summary, https://www.unenvironment.org/interactive/emissions-gap-report/2019/ , download the full report, read Executive Summary, https://www.unenvironment.org/resources/emissions-gap-report-2019] Kolbert, Elizabeth. "The climate of man – II" <i>The New Yorker</i> , May 2, 2005. https://www.newyorker.com/magazine/2005/05/02/the-climate-of-man-ii Recommended: Steffen, Will, Johan Rockström, Katherine Richardson, et al. "Trajectories of the Earth System in the Anthropocene" <i>PNAS</i> , 115 (33, August 14, 2018): 8252–8259. https://www.pnas.org/content/pnas/115/33/8252.full.pdf
Feb 8 6:1	Climate Change CC 2 Due	Foster, Kenneth and Peter Huber. <i>Judging Science</i> . MIT Press, 1999. (Chapter 1, Chapter 2 to p28, Chapter 3 to p61, and Chapter 7 to p194) "U.S. Climate Change Litigation" Sabin Center for Climate Change Law, 2020. http://climatecasechart.com/us-climate-change-litigation/ Allen, Myles. "Fossil fuel companies know how to stop global warming. Why don't they?" TED Talk, October, 2020. https://www.ted.com/talks/myles_allen_fossil_fuel_companies_know_how_to_stop_global_warming_why_do_n_t_they#t-1103 "Joe Biden Takes Climate Change Seriously" <i>The New York Times</i> , December 28, 2020. https://www.nytimes.com/2020/12/28/opinion/biden-cabinet-climate-change.html Choose ONE to research: <i>The Green New Deal</i> . H.Res.109 - Recognizing the duty of the Federal Government to create a Green New Deal . 116th Congress (2019-2020). https://www.congress.gov/116/bills/hres/109/BILLS-116hres109ih.pdf <i>The Sunrise Movement</i> . https://www.sunrisemovement.org/ [About and Take Action] <i>Fridays for Future</i> . https://www.fridaysforfuture.org/ [How and Statistics and Map] <i>350.org</i> . https://350.org/about/ [About] <i>Extinction Rebellion</i> . https://rebellion.earth/ [The Truth and Act Now] <i>Our Children's Trust</i> . "Julianna v. U.S. – Climate Lawsuit" Eugene, OR: Ourchildrenstrust.org. https://www.ourchildrenstrust.org/us/federal-lawsuit/ ["constitutional climate lawsuit" link to view/download text of the case in US District Court, and read Introduction and the Statement of Facts (page 51)]
Feb 10 6:2	Climate Change	Popovich, Nadja. "How does your State make electricity?" <i>The New York Times</i> , December 24, 2018. https://www.nytimes.com/interactive/2018/12/24/climate/how-electricity-generation-changed-in-your-state.html [Select 3 states to compare] Grubb, Michael. "Conditional optimism: Economic perspectives on deep decarbonization" Institute for New Economic Thinking, December 5, 2018. https://www.ineteconomics.org/perspectives/blog/growth-with-decarbonization-is-not-an-oxymoron Rotonti, John. "What is ESG Investing?" <i>The Motley Fool</i> . https://www.fool.com/investing/stock-market/types-of-stocks/esg-investing/ Recommended: Van Vuuren, Detlef P., Elke Stehfest, David E.H.J. Gernaat, et al. "Alternative pathways to the 1.5 °C target reduce the need for negative emission technologies" <i>Nature Climate Change</i> 8 (2018): 391–397.
Feb 15	Sixth Extinction	The Nature Conservancy. <i>Nature in the Urban Century</i> . November 13, 2018. https://www.nature.org/en-us/what-we-do/our-insights/perspectives/nature-in-the-urban-century/?vu=r.v_urban100 [read Impacts of

7:1	CC 3 Due (No Class)	<p>Urban Growth on Biodiversity (20-36); Impacts of Urban Growth on Climate Change (43-50)]</p> <p>Benson, Michael. "Watching Earth Burn" <i>The New York Times</i>, December 28, 2020. https://www.nytimes.com/2020/12/28/opinion/climate-change-earth.html</p> <p><i>Endangered Species Act of 1973</i>. (Section 7) https://www.fws.gov/endangered/laws-policies/ (for overview and link to statute, read full text of statute, 44 pages)</p> <p>For your assignment: <i>The National Environmental Policy Act of 1969</i>. As amended, 1982. https://ceq.doe.gov/laws-regulations/laws.html (Read website, download and read the full text, 7 pages)</p>
Feb 17 7:2	Sixth Extinction Assign NEPA	<p>Kolbert, Elizabeth. "The Sixth Extinction?" <i>The New Yorker</i>, May 25, 2009. https://www.newyorker.com/magazine/2009/05/25/the-sixth-extinction</p> <p>Jarvis, Brooke. "The insect apocalypse is here" <i>The New York Times Magazine</i>, November 27, 2018. https://www.nytimes.com/2018/11/27/magazine/insect-apocalypse.html</p> <p>"Birds 'falling out of the sky' in mass die-off in south-western US." <i>The Guardian</i>, September 16, 2020. https://www.theguardian.com/environment/2020/sep/16/birds-falling-out-of-the-sky-in-mass-die-off-in-south-western-us-aoe</p> <p>"Mass die-off of birds in south-western US 'caused by starvation'." <i>The Guardian</i>, December 26, 2020. https://www.theguardian.com/environment/2020/dec/26/mass-die-off-of-birds-in-south-western-us-caused-by-starvation-aoe</p> <p>Read these to Compare:</p> <p>Brannen, Peter. "The Earth is not in the midst of a sixth mass extinction" <i>The Atlantic</i>, June 13, 2017. https://www.theatlantic.com/science/archive/2017/06/the-ends-of-the-world/529545/</p> <p>Ceballos, Gerardo, and Paul R. Ehrlich. "The misunderstood sixth mass extinction" <i>Science</i>, 08 JUN 2018: 1080-1081. http://science.sciencemag.org.offcampus.lib.washington.edu/content/360/6393/1080.2 [1 page]</p> <p>Recommended: Ceballos, Gerardo, Paul R. Ehrlich, and Rodolfo Dirzo. "Population losses and the sixth mass extinction" <i>Proceedings of the National Academy of Sciences (PNAS)</i>, Jul 2017, 114 (30): E6089-E6096; DOI:10.1073/pnas.1704949114. https://www.pnas.org/content/114/30/E6089.full</p>
Feb 22 8:1	Sixth Extinction NEPA 1 Due	<p>Convention on Biological Diversity (CBD). "The Convention" United Nations Environment Program (UNEP). https://www.cbd.int/convention/default.shtml [read Introduction, download to read Text of the Convention (30 pages), and view the CBD timeline]</p> <p>Barton, John. "Biodiversity at Rio" <i>BioScience</i>. 42(10: November 1992) 773-776.</p> <p>Masood, Ehsan. "The battle for the soul of biodiversity" <i>Nature</i>, August 22, 2018. https://www.nature.com/articles/d41586-018-05984-3</p> <p>Recommended: De Groot, R.; Jax, K. and P. Harrison (2016). "Links between Biodiversity and Ecosystem Services" In: Potschin, M. and K. Jax (eds): <i>OpenNESS Ecosystem Services Reference Book. EC FP7 Grant Agreement no. 308428</i>. http://www.openness-project.eu/library/reference-book/sp-link-between-biodiversity-and-ecosystem-services</p>
Feb 24 8:2	Sixth Extinction	<p>Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). "Home". United Nations Environment Program (UNEP), 2018. https://www.ipbes.net/ [read About (What is IPBES?), and Work Programme]</p> <p>Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019): "Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services". S. Diaz, et al. (eds.). IPBES secretariat, Bonn, Germany. [pages 1-47] https://ipbes.net/global-assessment-report-biodiversity-ecosystem-services</p>
Mar 1 9:1	Sixth Extinction NEPA 2 Due	<p>Kimmerer, Robin. <i>Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants</i>. Milkweed Editions, 2013. (Pages ix, Preface, and 1-59, Planting Sweetgrass [the first 6 chapters of the book])</p> <p>Mann, Charles. "'There's good fire and bad fire.' An Indigenous practice may be key to preventing wildfires" <i>National Geographic</i>, December 17, 2020. https://www.nationalgeographic.com/history/2020/12/good-fire-bad-fire-indigenous-practice-may-key-preventing-wildfires/</p> <p>Perspective The move Biden can make to reverse centuries of exploitation of Native Americans - The Washington Post https://apple.news/AeOivcjncS8m3tyypORAnCQ</p> <p>For your assignment: Steinemann, Anne. "Improving alternatives for environmental impact assessment." <i>Environmental Impact Assessment Review</i>. 21 (1: January 2001) 3-21.</p>
Mar 3 9:2	Sixth Extinction	<p>Kimmerer, Robin. <i>Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants</i>. Milkweed Editions, 2013. (Pages 121-127, Epiphany in the Beans, 341-348, People of Corn, People of Light, 361-384, Shkitagen: People of the Seventh Fire)</p> <p>Julian Agyeman, Robert D. Bullard & Bob Evans (2002) Exploring the Nexus: Bringing Together Sustainability, Environmental Justice and Equity, <i>Space and Polity</i>, 6:1, 77-90, DOI: 10.1080/13562570220137907</p> <p>Lammy, David. "Climate justice can't happen without racial justice" TED Talks, October, 2020. https://www.ted.com/talks/david_lammy_climate_justice_can_t_happen_without_racial_justice#t-3131</p>

For your assignment: Rowe, Gene, and Lynn J. Frewer. "Public participation methods: A framework for evaluation." *Science, Technology and Human Values*. 25 (1:January 2000): 3-29.

For your assignment: Moore, John. "Perspective: Does peer review mean the same to the public as it does to scientists?" *Nature* (2006).

Mar 8 10:1	Sixth Extinction NEPA 3 Due	<p>Southern Resident Orca Task Force. <i>Report and Recommendations</i>. November 16, 2018. https://www.governor.wa.gov/issues/issues/energy-environment/southern-resident-orca-recovery/task-force [read Executive Summary; optional reading, Recommendations]</p> <p>US Environmental Protection Agency. "Southern Resident Killer Whales" USEPA, Last update August 28, 2018. https://www.epa.gov/salish-sea/southern-resident-killer-whales [read main text and review associated figures and maps]</p> <p>Mauger, G.S., J.H. Casola, H.A. Morgan, et al., 2015. <i>State of Knowledge: Climate Change in Puget Sound. Report prepared for the Puget Sound Partnership and the National Oceanic and Atmospheric Administration.</i> Climate Impacts Group, University of Washington, Seattle. doi:10.7915/CIG93777D https://cig.uw.edu/resources/special-reports/ps-sok/ [read Executive Summary]</p> <p>Recommended: For optional reading and research for see other reports from UW Climate Impacts Group at https://cig.uw.edu/resources/special-reports/, and tools for analysis at https://cig.uw.edu/resources/analysis-tools/</p>
Mar 10 10:2	Wrap-Up	Review of the Course Selected Presentations from Class Course Evaluations
Mar 17	Final Exam	No Final Exam
