Human Dimensions of the Environment | EVPP 336

Instructors: Asst. Prof. Karen Akerlof & doctoral student Meaghan Caruso
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Class Schedule: Mondays & Wednesdays, 1:30 pm - 2:45 pm, Aug. 22-Nov. 30
Location: Zoom
https://gmu.zoom.us/j/97136102241?pwd=VkRXTHNsR1hZVUNmK1VKTW92YUFEdz09
Meeting ID: 971 3610 2241
Passcode: EVPP336
Office Hours: Email to schedule; Fridays, 10 am-noon or at other times by appointment

> *Much of the damage inflicted on land is quite invisible to laymen. An ecologist must either harden his shell and make believe that the consequences of science are none of his business, or he must be the doctor who sees the marks of death in a community that believes itself well and does not want to be told otherwise.*
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> — *Aldo Leopold, A Sand County Almanac (1949)*

Course description and objectives

In this class, we will take the stance of Leopold's "doctor." We will diagnose the environmental challenges that we face on a global scale, and locally, on our own campus and in our communities. In order to understand the causes and nature of the damage, we will take a systems approach in exploring how humans have interacted with their environments over time, and how they are likely to do so in the future. Natural and social systems tend to behave in non-linear or counterintuitive ways that can make it difficult to anticipate how they may change over time. This course is predicated on the importance of systems thinking in creating accurate conceptual models for decision-making.

During (~) the first half of the semester we will explore the dynamics of these complex systems by reading Prof. Donella Meadows' *Thinking in Systems* and Prof. Leslie Crutchfield's book *How Change Happens*, complemented by other readings on socio-ecological systems and social movements. During the second half of the term we will consider changes in socio-ecological systems over time using Prof. Yuval Noah Harari's book *Sapiens* as a guide.

Mason Impact (Impact + Civic Engagement and Community Learning, CECiL)
This course takes a problem-based learning approach. As you will read in Harari's book, changes in the scale of human social communication and collaboration over thousands of years have given our species enormous power in transforming global ecosystems. Efforts to promote sustainability require the ability to motivate this capacity for social cooperation in addressing environmental issues, whether climate change, biodiversity loss, or marine debris. During the term you will engage in two projects that will require thinking through the lens of socio-ecological systems in order to diagnose human-environment interactions at various scales. For each project, you will prepare a report/memo on the topic, analyzing possible approaches, and present it. You will be required to base your research on citations that are of sufficient quality that they could be used by a decision-maker in credibly making the claim to others. Group meetings in class, and invited speakers, will support you as you research and write the assignments. Through these course components, the following learning outcomes will be met:

1. Understanding how to conduct research and use knowledge to address environmental issues of societal importance;
2. Exploring different perspectives of stakeholders and being able to relate how their viewpoints affect social responses to environmental issues;
3. Engaging in inquiry about topics of importance to environmental protection in a series of increasingly challenging assignments.

Assignments and grading
You will have five types of graded assignments plus weekly reading questions: 1) a short blog detailing your experiences during one hour of media use (Internet, television, video games) versus one hour spent outside in relatively natural area; 2) a brief written description of your assigned character's perspective of a historical societal "collapse" and participation in a class panel with others from your society; 3) contribution of an example of human-environment interactions from a period in history**;** 4) submission to the class online map of an example of human-environment interactions on George Mason University's Fairfax campus and ideas for new approaches; and 5) an environmental policy memo diagnosing a problem and potential solutions. Each week, you will be required to respond to reading questions that will be posted on Blackboard. Together, these assignments will constitute your grade for the term. You will be given a rubric prior to each assignment that details all required components and their associated point value.

Blog on your experiences of information from mediated vs. natural environments
After reading chapters from Bill McKibben's book on the age of missing information, you will write a minimum of a paragraph each on the information you receive from (1) one

hour of time spent in a mediated environment (television, computer games, social media, other online sources) and (2) one hour in a relatively natural setting with no forms of anthropogenic audio-visual information (aka, no music on head phones or Youtube on your phone).

Experiencing a societal collapse: Your character's perspective
What was it like to see the last tree die on Easter Island? Would you notice if your society's way of life was out of sync with its environment? If so, how would you feel and who—or what—would you blame? You will write a paragraph as a character from one of four societies described in Jared Diamond's *Collapse*. In class, you will participate in a panel describing what life was like for your character and answer questions (in character) from your classmates.

Historical timeline of human-environment interactions
During our reading of *Sapiens*, you will be assigned an essay for one of the four broad historical periods of the book. In the essay, you will describe an example of human-environment interactions that occurred during the period and its environmental and social implications. All information must be appropriately cited.

Writing a memo on environmental policy approaches
You will research a current environmental challenge and its socioeconomic dimensions for the purpose of making policy recommendations to an elected official from your district. You will write a letter to the policymaker, including the memo and its recommendations.

Mapping human-environment interactions on Mason's Fairfax campus
As a class, we will create an online map of how and where Mason students, faculty, and staff interact with their environment—both the things that we can see (recycling and waste) and aspects that can be less visibly apparent (air and water pollution). You will identify a place on Mason's Fairfax campus where people have a direct, or indirect, interaction with their environment. The interaction can either be positive—with benefits to people and healthy ecosystems—or negative, e.g. harmful in some way. An example of a positive interaction might be the campus honey bee initiative. An example with negative environmental implications might be food waste. In a short summary, you will identify the social reasons the interaction occurs and the environmental consequences. If the interaction causes harm to people and our ecosystems, you will also note whether Mason is currently taking steps to address it and what solutions might entail at the campus level. All information for the map must be appropriately cited. During the class period in which the map entry is due, you will walk your classmates to the location where the interaction occurs and present your findings.

Grade distribution overview

1	Blog on information from mediated vs. natural sources	10%
2	*Collapse* essay and panel participation	10%
3	Entry for the map of Mason's human-environment interactions	17.5%
4	Timeline essay	17.5%
5	Environmental policy memo	30%
6	Reading discussion questions	15%
*	*[Extra credit, TBD (Field trips)]*	*5%*

Loss of points

Please watch for emails from the instructor in regard to preparation for upcoming classes, and please attend all classes. Lack of preparation for class may incur loss of points.

Attending class is vital to your success in the course. One unexcused absence is permitted. Failure to attend more than one class will result in a loss of 1 point per class period. If you have a medical—or other—reason for missing class, please provide a letter from your physician or equivalent. If you face difficulties in attending class, please let me know.

Grades

Your final letter grade will be assessed based on the total points you have accumulated through completing the assignments. Grades will not be curved.

A+	97-100	B+	87-89	C+	77-79	D	65-69
A	93-96	B	83-86	C	73-76	F	0-64
A-	90-92	B-	80-82	C-	70-72		

Course Schedule (subject to change)

Week	Date	**Topics**	**Readings & Assignments**
Week 1	Aug. 22; Aug. 24	• Introductions • Course overview • **Systems thinking** • **Collective action and community engagement**	*Reading due Monday: None* *Reading due Wednesday:* Editors. (2020). Imagine a world without hunger, then make it happen with systems thinking. *Nature, 577*(7790), 293–294. Wyborn, C., Davila, F., Pereira, L., Lim, M., Alvarez, I., Henderson, G., Luers, A., Martinez Harms, M. J., Maze, K., Montana, J., Ryan, M., Sandbrook, C., Shaw, R., & Woods, E. (2020). Imagining transformative biodiversity futures. *Nature Sustainability, 3*(9), 670–672.
Week 2	Aug. 29; Aug. 31	• **Humans and nature** • **Socio-ecological systems**	**** Due Aug. 31: "2 hours of information" blog post** *Reading due Monday:* Folke, C., Biggs, R., Norström, A., Reyers, B., & Rockström, J. (2016). Social-ecological resilience and biosphere-based sustainability science. *Ecology and Society, 21*(3). McKibben, B. (1992). *The age of missing information* (1st ed.). New York: Random House. — 7:00 am — Daybreak

Week 3	*No class on Sept 5 (Labor Day)*; Sept. 7	• **Systems dynamics, Part I**	*Reading due Monday:* Meadows, D. H. (2009). *Thinking in systems: A primer* (D. Wright, Ed.). London, UK: Earthscan. — Chpt 1: The basics
Week 4	Sept. 12; Sept. 14	• **Systems dynamics, Part II**	*Reading due Monday:* Meadows, D. H. (2009). *Thinking in systems: A primer* (D. Wright, Ed.). London, UK: Earthscan. — Chpt 5: System traps … and opportunities — Chpt. 6: Leverage points
Week 5	Sept. 19; Sept. 21	• **Socio-ecological systems frameworks**	*Reading due Monday:* Ostrom, E., & Cox, M. (2010). Moving beyond panaceas: A multi-tiered diagnostic approach for social-ecological analysis. *Environmental Conservation*, *37*(4), 451–463. Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change*, *20*(4), 550–557.
Week 6	Sept. 26; Sept. 28	• **Human-environment interactions over time**	**** Due Sept. 28: Short essay on your character's perspective of societal collapse (submit on Blackboard before class starts); in-class group participation** *Reading due Monday:* Diamond, J. M. (2005). *Collapse: How societies choose to fail or succeed*. New York: Viking.

			— (Group 1) Chpt. 2: Twilight at Easter — (Group 2) Chpt. 4: The ancient ones: The Anasazi and their neighbors — (Group 3) Chpt. 5: The Maya collapses — (Group 4) Chpt. 8: Norse Greenland's end
Week 7	Oct. 3; Oct. 5	• **Social change**	*Reading due Monday:* Crutchfield, L. R. (2018). *How change happens: Why some social movements succeed while others don't*. Newark, NJ: John Wiley & Sons. — Introduction: How change happens — Chapter 1: Turn grassroots gold — Chapter 2: Sharpen your 10/10/10/20 = 50 vision
Week 8	Oct. 11 *(note, Tuesday)*; Oct. 12	• **Social change** • **Environmental movements**	*Reading due Monday:* Crutchfield, L. R. (2018). *How change happens: Why some social movements succeed while others don't*. Newark, NJ: John Wiley & Sons. — Chapter 3: Change hearts and policy Rootes, C. (2007). Environmental movements. In D. A. Snow, S. A. Soule, & H. Kriesi (Eds.), The Blackwell Companion to Social Movements (pp. 608–640). Oxford, UK: Blackwell Publishing.
Week 9	Oct. 17; Oct. 19	• **Environmental justice**	**** Due Oct. 19: Policy memo preparatory research** *Reading due Monday:*

		• **+ Mapping Mason entries**	Bullard, R. D. (2020). From civil rights to Black Lives Matter. In M. Mascarenhas (Ed.), *Lessons in environmental justice: From civil rights to Black Lives Matter and idle no more*. Sage. Gilio-Whitaker, D. (2019). *As long as grass grows: The Indigenous fight for environmental justice, from colonization to Standing Rock.* Beacon Press. — Chapter 1: Environmental justice theory and its limitations for Indigenous peoples
Week 10	Oct. 24; Oct. 26	• **Cognitive revolution**	**** Due Oct. 24: Team 1 cognitive revolution timeline additions/presentations** *Reading due Monday:* Harari, Y. N. (2014). *Sapiens: A brief history of humankind*. Toronto, Ontario: Signal. — Part One; Chpts. 1-4
Week 11	Oct. 31; Nov. 2	• **Agricultural revolution**	**** Due Oct. 31: Team 2 agricultural revolution timeline additions/presentations** *Reading due Monday:* Harari, Y. N. (2014). *Sapiens: A brief history of humankind*. Toronto, Ontario: Signal. — Part Two; Chpts. 2-8

Week 12	Nov. 7; Nov. 9	• **Unification of mankind** • **+ Mapping Mason**	**** Due Nov. 7: Team 3 mankind's unification timeline additions/presentations** *Reading due Monday:* Harari, Y. N. (2014). *Sapiens: A brief history of humankind*. Toronto, Ontario: Signal. — Part Three; Chpts. 9-13
Week 13	Nov. 14; Nov. 16	• **Scientific revolution** • **+ Mapping Mason**	**** Due Nov. 14: Team 4 scientific revolution timeline additions/presentations** *Reading due Monday:* Harari, Y. N. (2014). *Sapiens: A brief history of humankind*. Toronto, Ontario: Signal. — Part Four; Chpts. 14-20
Week 14	Nov. 21; *Thanksgiving break*	• **AI, environment, & equity** • **Sapiens wrap-up** • **+ Mapping Mason presentation**	Crawford, K. (2021). *The atlas of AI: Power, politics, and the planetary costs of artificial intelligence.* Yale University Press. — Introduction (Everyone) — Chapter 1: Earth (Everyone) — Pick one or more other chapters of your choice (Chapters 2-6)
Week 15	Nov. 28; Nov. 30	• **Memo elevator speech presentations**	****Due Nov. 28: Policy memo and elevator speech due**

Possible syllabus changes
As the instructor, I reserve the right to make changes to the syllabus. Students will be given ample notice regarding any major changes to the course plan.

Late assignments
Assignments turned in late will be penalized by deducting 5% from the total points for each day it is late.

Gender identity and pronoun use
If you wish, please share your name and gender pronouns with me and how best to address you in class and via email. I use "she/her/hers" for myself. You may address me as "Karen" or "Dr./Prof. Akerlof" in email and verbally. Mason provides tools to change your name and pronouns on Mason records, see https://registrar.gmu.edu/updating-chosen-name-pronouns/.

Course materials and student privacy
I will not be video recording the classes except in rare instances. However, the PPTs from each meeting will be available on Blackboard. All course materials posted to Blackboard or other course site are private to this class; by federal law, any materials that identify specific students (via their name, voice, or image) must not be shared with anyone not enrolled in this class.

- Video recordings of class meetings that include audio, visual, or textual information from other students are private and must not be shared outside the class
- Live video conference meetings (e.g. Collaborate or Zoom) that include audio, textual, or visual information from other students must be viewed privately and not shared with others in your household or recorded and shared outside the class.

General
This course adheres to all university policies described in the academic catalog. Please pay close attention to the following policies:

- **Students with disabilities**
  Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit http://ds.gmu.edu/ for information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union

Building I, Suite 2500 or can be reached at ods@gmu.edu or (703) 993-2474.

- **Diversity and inclusion**
  One of the goals for the course is to create a learning environment that fosters respect for people across identities. As a class, we welcome and value individuals and their differences, including gender expression and identity, race, economic status, sex, sexuality, ethnicity, national origin, first language, religion, age and ability. We encourage all members of the learning environment to engage with the material personally, but to also be open to exploring and learning from experiences different than their own.

- **Academic integrity: Mason's Honor Code**
  At George Mason University, Academic Integrity is demonstrated in our work, community, the classroom and research. We maintain this commitment to high academic standards through Mason's Honor Code. It is an agreement made by all members of our community to not "cheat, steal, plagiarize, or lie in matters related to your academic work." Students sign an agreement to adhere to the Honor Code on their application for admission to Mason and are responsible for being aware of the most current version of the code.

  The integrity of the University community is affected by the individual choices made by each of us. Mason has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct. Plagiarism means using the exact words, opinions, or factual information from another person without giving the person credit. Writers give credit through accepted documentation styles, such as parenthetical citation, footnotes, or endnotes. Paraphrased material must also be cited, using the appropriate format for this class. A simple listing of books or articles is not sufficient. Plagiarism is the equivalent of intellectual robbery and cannot be tolerated in the academic setting. If you have any doubts about what constitutes plagiarism, please see me.

- **Dropping the course**
  You are responsible for understanding the university's policies and procedures regarding withdrawing from courses found in the current catalog. You should be aware of the current deadlines according to the Academic Calendar.

- **Email**
  All course information will be sent to your George Mason University email account, including changes to the class schedule due to weather conditions. Students must use their Mason email account to receive important University information, including communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address.

- **Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking**
  George Mason University is committed to providing a learning, living and working environment that is free from discrimination and a campus that is free of sexual misconduct and other acts of interpersonal violence in order to promote community well-being and student success. We encourage students and employees who believe that they have been sexually harassed, sexually assaulted or subjected to sexual or interpersonal misconduct to seek assistance and support. University Policy 1202: Sexual Harassment and Misconduct speaks to the specifics of Mason's process, the resources, and the options available to students and employees.

  As a faculty member, I am designated as a "Non-Confidential Employee," and must report all disclosures of sexual assault, sexual harassment, interpersonal violence, stalking, sexual exploitation, complicity, and retaliation to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance or support measures from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.