# **Human Dimensions** of the Environment





**Instructor:** Asst. Prof. Karen Akerlof

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Class Schedule: Mondays & Wednesdays,

1:30 pm-2:45 pm

Location: Research Hall 202

**Office Hours:** Fridays, 10 am-noon, David King 3032 or upon 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.

— 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 historical perspective of how humans have interacted with their environments over time, and how they are likely to do so in the future. The path of human history is inextricably interwoven with that of Earth's ecosystems. The abundance of natural resources has fueled the rise of human societies and, when these stores declined, sometimes led to the rapid demise of civilizations. But human ingenuity and social organization factor into these outcomes as well, increasing the complexity of the diagnostic task before us. As difficult as it is academically to answer the question "what makes certain societies more environmentally sustainable than others?," it is of enormous practical import to do so. Only through better management of the social dimension of socioenvironmental systems will we find opportunities for sustainable solutions.

During (~) the first half of the semester we will explore the arc of socio-environmental systems over time using Prof. Yuval Noah Harari's book *Sapiens* as a guide. The second half of the semester we will read articles and book chapters in investigating present-day social dynamics: environmentalism, population, collective action, and social justice. We

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will learn about specific topics—such as food, energy, water, waste, and climate—through three short projects each student will complete during the course and present to the class. Finally, will also have a class field trip to a local park (extra credit) to sharpen our laymen's eyesight by learning to detect the many ways in which human impacts manifest on landscapes, even in ostensibly "natural" areas.

### Mason Impact (Impact + Civic Engagement and Community Learning, CECiL)

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 the use of a model of socio-ecological systems in diagnosing the dynamics of a local human-environment interaction (on campus) and one at a broader scale (state). For each project, you will prepare an essay/memo on the topic, analyzing possible approaches, and present it to a decision-maker (George Mason University's Office of Sustainability; on the "Solve Climate by 2030" statewide webinar). You will be required to base your research on citations that are of sufficient quality that they could be used by the decision-maker in credibly making the claim to others. The two projects—diagnosing a campus environmental interaction and analyzing state climate policy approaches—will build upon each other in their degree of complexity. 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 assignments: 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) a group project on human-environment interactions on George Mason University's Fairfax campus and ideas for new approaches; and 5) a policy memo assessing state climate policy approaches in support of "Solve Climate by 2030." These

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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 state climate policy approaches for "Solve Climate" This spring, the university will lead Virginia's participation in "Solve Climate by 2030. Virginia's General Assembly is expected to consider a number of pieces of climate-related legislation. Our class will assist the university in developing content to inform the webinar and panel discussion. You will write a policy memo that contributes to the initiative and attend the event on April 7<sup>th</sup>. **Please note, your participation on April 8<sup>th</sup> is mandatory**.

### Human-environment interactions on Mason's Fairfax campus

As a class, we will survey Mason students about their interactions with the environment on campus. 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. Based on the survey results, we will identify the most commonly cited interactions. In groups, you will identify the social reasons the interaction occurs and the environmental consequences then write up a summary for the Office of

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Sustainability. 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 must be appropriately cited. We will discuss your findings at the end of the course with the Office of Sustainability.

### **Grade distribution overview**

1	Blog on information from mediated vs. natural sources	15%
2	Collapse paragraph and panel participation	15%
3	Sapiens essay	20%
4	Team project: Mason campus human-environment interactions	20%
5	"Solve Climate by 2030" state policy memo	30%
*	[Extra credit] Field trip	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, including guest speakers, 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.

### 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	93-100	A-	90-92	B+	87-89
В	83-86	B-	80-82	C+	77-79
C	70-76	D	60-69	F	59 or less

### Course Schedule (subject to change)

Week	Date	Topics	Readings & Assignments
Week 1	Jan. 22	<ul><li>Introductions</li><li>Course overview</li></ul>	<ul> <li>In class:</li> <li>Conduct panel selection for past societies that "collapsed"</li> <li>Select groups for Sapiens essays</li> </ul>
Week 2	Jan. 27; Jan. 29	<ul> <li>The age of missing information</li> <li>Ideas of nature</li> <li>Speaker: Sarah D'Alexander, Sustainability Program Manager – Patriot Green Fund, George Mason University's Office of Sustainability</li> </ul>	** Due Jan. 29: "2 hours of information" blog post  Reading due Monday: McKibben, B. (1992). The age of missing information (1st ed.). New York: Random House.  — 7:00 am — Daybreak

### Feb. 3: \*\* Due Feb. 5: Short essay on your character's perspective of Week 3 **Human-environment** Feb. 5 societal collapse (submit on Blackboard before class starts); interactions over time in-class panel participation Time-travel panel report on participants' experiences of Reading due Monday: "collapsed" societies Diamond, J. M. (2005). Collapse: How societies choose to fail or — (Panel 1) Easter succeed. New York: Viking. Island — (Panel 1) Chpt. 2: Twilight at Easter — (Panel 2) The Anasazi — (Panel 2) Chpt. 4: The ancient ones: The Anasazi and their — (Panel 3) Maya neighbors — (Panel 4) Norse — (Panel 3) Chpt. 5: The Maya collapses Greenland — (Panel 4) Chpt. 8: Norse Greenland's end Speaker: David Blockstein, project manager, "Solve Climate by 2030" \*\* Due Feb. 12: Team 1 cognitive revolution timeline Week 4 Feb. 10; **Cognitive revolution** Feb. 12 additions/presentations + "Solve Climate" project Reading due Monday: Harari, Y. N. (2014). Sapiens: A brief history of humankind. Toronto, Ontario: Signal. — Part One; Chpts. 1-4

Week 5	Feb. 17; Feb. 19	<ul><li>Agricultural revolution</li><li>+ "Solve Climate" project</li></ul>	** Due Feb. 19: Team 2 agricultural revolution timeline additions/presentations
			<ul> <li>Reading due Monday:</li> <li>Harari, Y. N. (2014). Sapiens: A brief history of humankind. Toronto,</li> <li>Ontario: Signal.</li> <li>— Part Two; Chpts. 2-8</li> </ul>
Week 6	Feb. 24; Feb. 26	<ul><li> Unification of mankind</li><li> + "Solve Climate" project</li></ul>	** Due Feb. 26: Team 3 mankind's unification timeline additions/presentations
			<ul> <li>Reading due Monday:</li> <li>Harari, Y. N. (2014). Sapiens: A brief history of humankind. Toronto,</li> <li>Ontario: Signal.</li> <li>— Part Three; Chpts. 9-13</li> </ul>
Week 7	Mar. 2; Mar. 4	<ul><li>Scientific revolution</li><li>+ "Solve Climate" project</li></ul>	** Due Mar. 4: Team 4 scientific revolution timeline additions/presentations
			<ul> <li>Reading due Monday:</li> <li>Harari, Y. N. (2014). Sapiens: A brief history of humankind. Toronto,</li> <li>Ontario: Signal.</li> <li>— Part Four; Chpts. 14-20</li> </ul>
Week 8	Mar. 9; Mar. 11		SPRING BREAK, NO CLASS

Week 9	Mar. 16; Mar. 18	• Environmentalism	** Due Mar. 18: Group A "Solve Climate" state policy memo/presentations
			Reading due Monday:
			Rootes, C. (2007). Environmental movements. In D. A. Snow, S. A. Soule, & H. Kriesi (Eds.), <i>The Blackwell Companion to Social Movements</i> (pp. 608–640). Oxford, UK: Blackwell Publishing.
Week 10	Mar. 23; Mar. 25		** Due Mar. 23 & 25: Group B & C "Solve Climate" state policy memo/presentations
Week 11	Mar. 30; Apr. 1	<ul> <li>Population</li> <li>+ Campus project</li> </ul>	** In-class survey development  Reading due Monday: Cafaro, P. (2012). Climate ethics and population policy. Wiley Interdisciplinary Reviews: Climate Change, 3(1), 45–61. Ehrlich, P. R., & Holdren, J. P. (1971). Impact of population growth. Science, 171(3977), 1212–1217.
Week 12	Apr. 6; Apr. 8		NO CLASS Apr. 6 or Apr. 8 [MANDATORY] "Solve Climate" Apr. 7 <sup>th</sup> , ~5-8 pm
Week 13	Apr. 13; Apr. 15	Su	DURING CLASS PERIODS  urvey students in Johnson Center for campus project

Week 14	Apr. 20; Apr. 22	<ul> <li>Public goods and collective action</li> <li>Values and social justice</li> <li>+ Campus project</li> </ul>	<ul> <li>Reading due Monday:</li> <li>Hardin, G. (1968). The tragedy of the commons. Science, 162(3859), 1243–1248.</li> <li>Ostrom, E., Burger, J., Field, C. B., Norgaard, R. B., &amp; Policansky, D. (1999). Revisiting the commons: Local lessons, global challenges. Science, 284(5412), 278–282.</li> <li>Bullard, R. D. (1990). Environmentalism and social justice. In Dumping in Dixie: Race, class, and environmental quality. Boulder: Westview Press.</li> <li>Dietz, T., Fitzgerald, A., &amp; Shwom, R. (2005). Environmental values. Annual Review of Environment and Resources, 30(1), 335–372.</li> </ul>
Week 15	Apr. 27; Apr. 29	• + Campus project	** Due Apr. 27: Bring contributions for group campus project memo to class; group work in class both days
Week 16	May 4	• Discussion of campus project findings with Sarah D'Alexander	** Due May 6: Final submission of project findings to Sarah D'Alexander

### 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. Assignments will no longer be accepted after 3 days past the due date.

### General

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

### Students with disabilities

If you are a student with a disability and you need academic accommodations, please contact the Disability Resource Center (DRC) at (703) 993-2474. All academic accommodations must be arranged through the DRC.

### • 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.

### • 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.

## • Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking

As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence, and stalking 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 from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.