

Human Dimensions of the Environment

| EVPP 336:002



Spring 2020

Instructor: Sarah Weber, M.Sc.
Email: sweber9@gmu.edu

Class Schedule: Mondays, 7:20 – 10:00 pm

Location: Thompson Hall L004

Office Hours: By appointment*

*Communication with instructor: I do not have set office hours but rather are available upon request by my GMU email. Please don't hesitate to contact me and I will respond promptly to schedule either an in-person meeting, skype or phone chat.

INTRODUCTION

"We stand now where two roads diverge. But unlike the roads in Robert Frost's familiar poem, they are not equally fair. The road we have long been traveling is deceptively easy, a smooth superhighway on which we progress with great speed, but at its end lies disaster. The other fork of the road—the one less traveled by—offers our last, our only chance to reach a destination that assures the preservation of the earth."

— **Rachel Carson, Silent Spring, Houghton Mifflin (1962)**

"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, Oxford University Press (1949)**

We are facing complex environmental problems that increasingly threaten the balance necessary to sustain the earth's diverse ecosystems. We continue to and have already lost many plant and animal species that are vital to the biodiversity that is the foundation for ecosystem health. We continue to destroy habitat and to generate far more waste, in solid, liquid and gaseous forms, than our planet can neutralize. Toxins, disease epidemics, contamination of water, air and land, species extinctions, ecosystem decline, loss of human cultures, global warming, overconsumption, starvation, population pressure, etc., etc., etc. How do we strike a balance between the reality of our many ecological crises and our personal, professional and collective response? What is the difference between being environmentally aware and being environmentally literate? How can we be part of the solution and not part of the problem?

In this course, we will grapple with these questions and focus on positive change. We will explore our own environmental values, develop our environmental literacy and a capacity for place-based ecology, and develop an understanding of the ethnosphere, the full complexity, and a complement of human potential as brought about by culture and adaptation since the dawn of consciousness.

Three key assumptions underlie this course: (1) All life on earth is faced with complex and unprecedented environmental issues that threaten its survival; (2) *Homo sapiens* (humans) have been the cause of these life-

threatening environmental issues; (3) Humans have a unique creative capacity that can turn things around if they can become environmentally literate and take action now.

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

As you will read throughout the semester, 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 (local or state). For each project, you will prepare an essay/memo on the topic, highlighting possible approaches, and present it to a decision-maker (George Mason University's Office of Sustainability; a staff member for a local policymaker). 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 making the claim on behalf of their organization. The two projects—diagnosing a campus environmental interaction and addressing an issue of importance to a local policymaker—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 policy memo project.

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.

REQUIRED READING

All readings will be supplied by the instructor and posted on the class Blackboard page.

Link:

https://mymasonportal.gmu.edu/webapps/blackboard/execute/modulepage/view?course_id=_383737_1&cmp_tab_id=_624533_1&editMode=true&mode=cpview#

GRADES AND ASSIGNMENTS

Grades in this course will be based on:

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|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | Participation in class and via comments on Blackboard (no grade, but points will be deducted if you do not post comments on readings)** | --- |
| 2 | Blog on <i>The Land Ethic</i> | 15% |
| 3 | Student led discussions: Your team (3-4 students) will present and lead the discussion on a major environmental problem, helping to frame the essential questions and issues, and help lead us to appropriate conclusions, | 15% |

4	Entry for the map of Mason's human-environment interactions (Mapping Mason)	20%
5	Environmental policy memo	20%
6	Final research project	30%
*	[<i>Extra credit</i>] Field trip	5%
TOTAL POTENTIAL POINTS		105%

**It is the student's responsibility to speak to the instructor in advance if their religious observances will impact their participation in class activities and assignments.

You will have six types of assignments: 1) participation in an online discussion board about the weekly reading assignments; 2) a short blog reflecting on lessons from Aldo Leopold's *The Land Ethic* and describing your personal "land ethic"; 3) organizing and leading discussion with 3-4 classmates on that week's topic and assigned readings; 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; 5) an environmental policy memo diagnosing a problem and potential solutions; and 6) a final research paper and presentation on a human-environment interaction of your choice. 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****

Assignments:

1. Participation in class: In principle all activities of the course are mandatory, however there is no official grade for participation and attendance. Participation in all lectures is a prerequisite for passing the course. One meeting can be missed due to illness or unforeseen circumstances, if you inform the instructor by email before the meeting. Two points will be deducted from your final grade for each subsequent class missed unless documentation can be provided as to why the student missed class.

Each week as part of your participation, you will also be expected to contribute to a discussion of the week's readings on Blackboard by submitting a comment of 1-2 paragraphs prior to class that demonstrates understanding of the material. This will ensure a robust discussion with the student group leading that week's presentation on the topic. If your group is leading discussion that week, you will not be required to post on Blackboard as well.

2. Blog on *A Sand County Almanac* and your "land ethic": After reading Aldo Leopold's essay "The Land Ethic" in his book *A Sand County Almanac*, you will write a short blog of no more than 500 words on your reflections from the book, as well as your thoughts on developing your own personal "land ethic". This will be posted on our class website.
3. Student-led presentation/discussion: Each week, a group of 3-4 students will prepare a presentation and discussion together in a group about the week's topic and assigned readings. The presentation should last between 10-15 minutes and must add at least two additional academic sources about the topic to the discussion. You will together facilitate the discussion (about 30 min) after your presentations. You can arrange the discussion time as you want to, and are encouraged to use various teaching strategies, i.e. group discussion, small groups, role play, debate, etc.

You will present a concise and well-rehearsed 10-15-minute talk to give your take on the most important issues on the class topic for your week (see list of topics in the outline). Take as innovative and provocative approach to your week's question as you wish.

4. **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). 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. We will also survey the Mason community to identify places on Mason's Fairfax campus where people have a direct, or indirect, interaction with their environment. Based on the survey results, we will identify the most commonly cited interactions. You will identify the social reasons the interaction occurs and the environmental consequences – then you will write up a summary for the Office of 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.
5. **Writing an environmental policy memo:** During the third class, you will hear from Anna Perry, a former staff member for Rep. Anna Eshoo (D-California). Eshoo represents California's 18th district in the U.S. House of Representatives and has a very strong pro-environmental record. Perry will describe the process that policy memos go through in the House of Representatives and how her office manages them, and you will be able to ask questions of her on how policy moves through Congress. For this assignment, you will determine who your local representative is (if you are an international student, you can address your memo to Rep. Gerry Connolly who represents the university's district) and write a policy memo on an environmental issue important to that district. The memos will outline the environmental problem and potential solutions.
6. **Final research project:** In a semester-long research project, you will research a specific issue, related to the human dimensions of environmental change, of your choice. You will analyze the case from a social scientific standpoint. The project will be based on desk research only (literature review and document analysis). Evaluation of the term research project will be based on a paper (max 1500 words) and a presentation during the final two classes of the term. More information will be provided during the semester. You will have some time during the semester to work on the research project during class, and can receive feedback from the instructor.

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
B	83-86	B-	80-82	C+	77-79
C	70-76	D	60-69	F	59 or less

COURSE SCHEDULE

<i>Date</i>	<i>EVPP 336: Topics & Reading Assignments</i>	<i>Due</i>
Jan 27	<p>Introduction to the course</p> <p>Reading material for next class/assignment:</p> <ul style="list-style-type: none"> - D Leopold, A. (1949). The Land Ethic. In <i>A sand county almanac, and sketches here and there</i>. New York: Oxford Univ. Press. <p>Organize student-led discussions</p> <p>Guest Speaker: Sarah D'Alexander <i>Sustainability Program Manager – Patriot Green Fund, George Mason University's Office of Sustainability</i></p> <ul style="list-style-type: none"> - Overview of Mason Mapping assignment <p>Think about what you would like to work on for research project.</p>	
Feb 3	<p>Aldo Leopold's Land Ethic</p> <p>Reading material for next class / assignment:</p> <ul style="list-style-type: none"> - IPBES memo 2019: Global Assessment Report on Biodiversity and Ecosystem Services (Summary for policymakers) - IPCC Special Report: Global Warming of 1.5°C (Summary for policymakers) <p>Documentary screening: <i>Green Fire: Aldo Leopold and a Land Ethic for Our Time</i></p>	<p>Reading: The Land Ethic in <i>A Sand County Almanac</i></p> <p>Research topic idea sent to Sarah for approval</p>
Feb 10	<p>Global science-policy interfaces (IPCC and IPBES)</p> <p>Reading material for next class / assignment:</p> <ul style="list-style-type: none"> - The Nature Conservancy's "Playbook for Climate Action" - Griscom, B. W., Adams, J., Ellis, P. W., Houghton, R. A., Lomax, G., Miteva, D. A., Schlesinger, W.H., Shoch, D., Sukamäki, J. V., Smith, P., Woodbury, P., Zganjar, C., Blackman, A., Campari, J., Conant, R. T., Delgado, C., Elias, P., Gopalakrishna, T., Hamsik, M. R., ... Fargione, J. (2017). Natural climate solutions. <i>Proceedings of the National Academy of Sciences</i>, 114(44), 11645. https://doi.org/10.1073/pnas.1710465114 <p>Explanation policy memo, organization of teams, and work on policy memo</p> <p>Guest Speaker: Anna Perry, Former Staff Member for Rep. Anna Eshoo (D-California)</p>	<p>Blog on <i>A Sand County Almanac</i></p>

<i>Date</i>	<i>EVPP 336: Topics & Reading Assignments</i>	<i>Due</i>
Feb 17	<p>Climate change (mitigation and adaptation)</p> <p>Reading material for next class / assignment:</p> <ul style="list-style-type: none"> - Liu, J. et al. 2018. Spillover systems in a telecoupled Anthropocene: typology, methods and governance for global sustainability. <i>Current Opinion in Environmental Sustainability</i> 33: 58-69. - Review the UN's Sustainable Consumption and Production Hotspots Tool: https://www.unenvironment.org/news-and-stories/story/new-hotspots-tool-pinpoints-unsustainable-consumption-and-production <p>Work on Mapping Mason</p> <p>Guest speaker: Chris Zganjar, The Nature Conservancy</p>	<p>Assignment: Climate change posts on Blackboard</p> <p>Student-led presentations: Climate change</p> <ol style="list-style-type: none"> 1. 2. 3.
Feb 24	<p>(Un)sustainable production and consumption</p> <p>Reading material for next class / assignment:</p> <ul style="list-style-type: none"> - Chapters 1 (The Food Transition) and 3 (Edible Economics) from Wilson, B. (2019). <i>The way we eat now : how the food revolution has transformed our lives, our bodies, and our world</i> (First edition.). New York: Basic Books. 	<p>Assignment: Production and consumption posts on Blackboard</p> <p>Student-led presentations: Production & consumption</p> <ol style="list-style-type: none"> 4. 5. 6.
Mar 2	<p>Agriculture, food and land-use change</p> <p>Reading material for next assignment:</p> <ul style="list-style-type: none"> - Bullard, R. D. (1990). Environmentalism and social justice. In <i>Dumping in Dixie: Race, class, and environmental quality</i>. Boulder: Westview Press. - Pearson, A. R., Ballew, M. T., Naiman, S., & Schuldt, J. P. (2017). "Race, Class, Gender and Climate Change Communication." In A. R. Pearson, M. T. Ballew, S. Naiman, & J. P. Schuldt, <i>Oxford Research Encyclopedia of Climate Science</i>. Oxford University Press. https://doi.org/10.1093/acrefore/9780190228620.013.412 <p>Presentations Mapping Mason</p>	<p>Mapping Mason due</p> <p>Assignment: Agriculture, food, land-use change posts on Blackboard</p> <p>Student-led presentations: Agriculture, food, land-use change</p> <ol style="list-style-type: none"> 7. 8. 9.
Mar 9	<p>NO CLASS (Spring Break)</p>	

<i>Date</i>	<i>EVPP 336: Topics & Reading Assignments</i>	<i>Due</i>
Mar 16	<p>Environment and migration/ Environment and gender / Environmental justice</p> <p>Reading material for next assignment:</p> <ul style="list-style-type: none"> - Berkes, Fikret, Johan Colding, and Carl Folke (2000). Rediscovery of Traditional Ecological Knowledge as Adaptive Management. <i>Ecological Applications</i> 10:1251–1262 - McGregor, D. (2004). Traditional ecological knowledge and sustainable development towards coexistence, IDRC. <p>Work on policy memos</p>	<p>Assignment: Environment and migration / Environment and gender Blackboard post</p> <p>Student-led presentations: Migration/gender</p> <p>10.</p> <p>11.</p> <p>12.</p>
Mar 23	<p>IPLCs Indigenous Peoples and Local Communities (traditional knowledge, CBNRM, CBC)</p> <p>Reading material for next assignment:</p> <ul style="list-style-type: none"> - Beard, V.A., A. Mahendra, and M.I. Westphal. 2016. "Towards a More Equal City: Framing the Challenges and Opportunities." Working Paper. Washington, DC: World Resources Institute. Available online at: www.citiesforall.org. 	<p>Policy Memos</p> <p>Assignment: IPLCs Blackboard post</p> <p>Student-led presentations: IPLCs</p> <p>13.</p> <p>14.</p> <p>15.</p>
Mar 30	NO CLASS (work on research project)	
Apr 6	<p>Sustainable cities</p> <p>Reading material for assignment (available on Blackboard):</p> <ul style="list-style-type: none"> - Soulé, M. (1985). What Is Conservation Biology? <i>BioScience</i>, 35(11), 727-734. doi:10.2307/1310054 - Wynne, G. (2009). Conservation Policy and Politics. In <i>Conservation Science and Action</i> (pp. 256–285). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781444313499.ch13 	<p>Assignment: Sustainable cities Blackboard post</p> <p>Student-led presentations: Sustainable cities</p> <p>16.</p> <p>17.</p> <p>18.</p>

<i>Date</i>	<i>EVPP 336: Topics & Reading Assignments</i>	<i>Due</i>
Apr 13	<p>Conservation (terrestrial, freshwater, marine)</p> <p>Reading material for next assignment:</p> <ul style="list-style-type: none"> - Heberlein, T.A. 1988. Improving Interdisciplinary Research: Integrating the Social and Natural Sciences. <i>Society & Natural Resources</i> 1:5-16. - Wright, A. J., Veríssimo, D., Pilfold, K., Parsons, E. C. M., Ventre, K., Cousins, J., Jefferson, R., Koldewey, H., Llewellyn, F., & McKinley, E. (2015). Competitive outreach in the 21st century: Why we need conservation marketing. <i>Making Marine Science Matter: Issues and Solutions from the 3rd International Marine Conservation Congress</i>, 115, 41–48. https://doi.org/10.1016/j.ocecoaman.2015.06.029 - Bennett, N. J., Roth, R., Klain, S. C., Chan, K., Christie, P., Clark, D. A., Cullman, G., Curran, D., Durbin, T. J., Epstein, G., Greenberg, A., Nelson, M. P., Sandlos, J., Stedman, R., Teel, T. L., Thomas, R., Veríssimo, D., & Wyborn, C. (2017). Conservation social science: Understanding and integrating human dimensions to improve conservation. <i>Biological Conservation</i>, 205, 93–108. https://doi.org/10.1016/j.biocon.2016.10.006 	<p>Assignment: Conservation Blackboard Post</p> <p>Student-led presentations: Conservation</p> <p>19.</p> <p>20.</p> <p>21.</p>
Apr 20	<p>Barriers to an Interdisciplinary Understanding of Socio-Ecological Systems</p> <p>Work on final projects</p>	<p>Assignment: Interdisciplinary science Blackboard post</p> <p>Student-led presentations: Interdisciplinary science</p> <p>22.</p> <p>23.</p> <p>24.</p>
Apr 27	<p>Final Presentations</p> <p>Final Presentations (A-M)</p>	<p>Final Presentations (A-M)</p>
May 4	<p>Final Presentations</p> <p>Final Presentations (N-Z)</p>	<p>Final Presentations (N-Z)</p> <p>Turn in final research paper by 11:59PM on May 12th</p>

Note: Instructor has right to change and modify this syllabus if need arises.

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.

Important resources for this course:

GMU writing center: <http://writingcenter.gmu.edu/>

GMU library: <http://library.gmu.edu/>

Counseling and Psychological Services (CAPS): <http://caps.gmu.edu/>

Links to the **University Catalog and the University Policies** website for all other university academic and non-academic policies:

University Catalog: <http://catalog.gmu.edu> University

Policies: <http://universitypolicy.gmu.edu>

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.