

ES 001: Introduction to Environmental Studies
Westmont College, Fall 2019
Wednesdays 3:15 PM-6:30 PM *Location TBA*

INSTRUCTORS

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COURSE DESCRIPTION

Widespread environmental problems such as biodiversity loss, resource depletion, and environmental change and degradation are among the most pressing global issues of our day. They have tremendous scientific, social, and moral dimensions that require a sophisticated, informed, and compassionate response from a range of disciplinary perspectives. This course is an introduction to the main features of the environment and global environmental issues. It will use an interdisciplinary approach that includes environmental science, ethics, literature, history, politics, sociology and economics. It will cultivate a deep understanding of individual and corporate connections to the natural world in all its diversity, and help students develop an interdisciplinary knowledge base and set of skills to engage contemporary environmental issues from local to global scales. It will also situate stewardship of the earth in the context of Christian theology and social and environmental ethics, and foster an ability to analyze and debate complex environmental problems, and devise constructive, imaginative strategies to address them.

COURSE LEARNING OUTCOMES

Environmental literacy

- Demonstrate a foundational interdisciplinary knowledge of the environment and global environmental issues
- Connect natural, economic, political and social systems to environmental issues in a global context
- Articulate a theological and ethical approach to environmental issues

Environmental skills

- Analyze and debate complex environmental problems globally and locally
- Craft creative solutions to local problem
- Communicate clearly about environmental issues while demonstrating respect, humility, and empathy toward the natural world, including human beings

GENERAL EDUCATION

This course fulfills Westmont’s general education requirement in **Thinking Globally**, and meets the Thinking Globally GE learning outcome that reads, “Students will be able to describe and analyze the dynamics of a particular artistic, economic, political, or social connection across cultural or regional boundaries.”

		Global inequities	Global systems
Foundational Knowledge	Lectures, readings, discussions, tests, journals (c)	Lectures, readings, discussions, paper	Lectures, readings, discussions, paper
Connect systems	Lectures, discussions, readings, journals (a)	Lectures, discussions, readings, journals (a), paper	Lectures, discussions, readings, journals (a), paper
Theology and Ethics	Discussions, readings, journals	Discussions, readings, journals, paper	Discussions, readings, journals, paper
Analyze and debate	Discussions, journals, Campus living lab	Discussions, journals, paper	Discussions, journals, paper
Craft solutions	Campus living lab, discussions		
Communicate	Discussions, Campus living lab, paper	Discussions, Campus living lab, paper	Discussions, Campus living lab, paper

ASSIGNMENTS

1. *Reading Notes (30%)*

Come to each class having done the readings for the day. Bring your typed notes to class. Notes should include at a minimum the main argument and sub-arguments of the readings, three discussion questions, a list of key terms you need to remember, and the questions you are left with after completing the reading. **Late or handwritten notes will not be accepted.** Plan to print your notes early, since printers have a tendency to quit working just when you need them!

2. *Short Tests (10%)*

You will have two short tests, one in the middle of the semester, and one at the end. They will cover material from the readings and lectures identified by the instructors. The format will be multiple choice and short answer.

3. *Journal (15%)*

a. *Weekly reflective assignments:*

Each week, you will turn in a short reflective response (700 words) on an assigned question related to topics such as current environmental news, perception of nature, and personal habits

related to food, water, carbon footprint, consumption or civic engagement. Your reflective response due on Week 4 should focus on the field trip taken the week prior.

b. Outdoor reflections:

Over the semester you will find a spot in three different habitats (oak woodland, riparian, chaparral, and/or shore) to sit quietly and observe for half an hour. You may jot down notes in a notebook, or make sketches if you like; but you should mostly focus on seeing, listening, smelling, perhaps even touching your surroundings. Refrain from the temptation to use any electronic devices over this time. After each of the three observation periods, write a short reflection on the experience (700 words).

c. Sustainability Speaker Series lectures:

You will attend at least three of the sustainability lectures proposed on campus and report in writing on the content of the presentation and the questions it raised for you (500 words).

4. Global Systems Papers (10%)

You will write a final paper reflecting on the global dimensions of the environmental issues presented in class and in your readings.

5. Campus Living Lab (25%)

You will participate in developing an interactive, research-based, multi-year campus sustainability project modeled on the concept of Urban Living Labs—an experimental approach to sustainability that has been modeled in cities throughout the world. This semester you will initiate conversation with the various “stakeholders” in our community by conducting surveys and interviews with individuals on and off campus to determine what campus projects might be most exciting and practical to pursue in the future. You will present your findings as a class at a Sustainability Lecture Series seminar. Future ES 001 classes will move to the next stage of action based on your findings. Further details regarding this assignment will be given in class.

6. Participation (10%)

Participating means coming to class having read the texts assigned, listening attentively to your instructors and your peers, and asking and answering questions. Your grade will be derived from your ability to initiate and participate in discussions on the readings, and the questions and reflections you share as the class progresses.

COURSE POLICIES

1. Academic Integrity

We expect you to demonstrate academic integrity while completing assignments for this course. Westmont’s policy on academic dishonesty, which includes all forms of plagiarism, cheating, and falsification, can be found at the following website:

http://www.westmont.edu/_offices/registrar/academic_policies/academic-dishonesty.html

If you have any questions regarding what academic integrity involves, we suggest consulting the College policy, or speaking with us directly.

2. Class Attendance and Conduct

Regular attendance of classes is expected, and attendance will be taken. College policy states that you are permitted to miss two classes per semester without penalty. Please inform us by email or in person if you are unable to attend a class. Students and instructor alike are responsible for maintaining an environment of collegiality and respect, free of any discrimination, harassment, or ridicule. **The use of cell phones, tablets, and computers is not permitted in the classroom.** Please turn off all such devices upon entering the classroom.

3. Late Assignments, Extensions, and Missed Exams

Late assignments will receive one-half grade-level reduction for each day they are late. Unexcused missed tests will receive a zero. Extensions or make-up tests will be offered only if you have missed their exam due to a medical or family emergency; appropriate documentation is required.

4. Academic Accommodations

If you have been diagnosed with a disability (learning, physical/medical, or psychological) are strongly encouraged to contact the Disability Services office as early as possible to discuss appropriate accommodations for this course. Formal accommodations will only be granted for students whose disabilities have been verified by the Disability Services office. These accommodations may be necessary to ensure your full participation and the successful completion of this course. For more information, contact Sheri Noble, Director of Disability Services (565-6186, snoble@westmont.edu) or visit the website <http://www.westmont.edu/offices/disability>.

5. Meeting with the Instructors

You are warmly encouraged to meet with us to discuss anything related to the course: lectures, readings, assignments, etc. Our office hours are given above. We will be happy to meet outside these hours as well; please email us to schedule an appointment.

COURSE SCHEDULE AND READINGS

While in some cases we will use the local Santa Barbara/California environment as a starting point, the readings for this course have been carefully selected to approach environmental issues in their global dimensions. Readings will include discussion of global ecological processes, globalization, development, sustainability, and international conflicts and policies. They will consider carefully how environmental degradation has affected various regions around the globe, and present case studies from within a wide range of regions, including Asia, Africa, Latin America, Oceania, Europe, and North America.

Week 1

Introduction

Week 2

Environment 1: Biodiversity and Biodiversity Loss

- Poem: "Bestiary", Pablo Neruda (Chile)

- Schiffman, Paula M. "The Los Angeles Prairie." *Land of Sunshine: Environmental History of the Los Angeles Region*. University of Pittsburgh Press, Pittsburgh (2005): 38-51.
- Jarvis, Brooke. "The Insect Apocalypse Is Here." *New York Times Magazine*, 2018.
- "How Should We Think of the Earth? A Theology and Ethic of Care for the Earth" Chapter 5 of *For the Beauty of the Earth* by Steven Bouma-Prediger
- "Management of Natural and Fragmented Habitats" in *Conservation 2nd Ed.* Hambler & Canney 2013

Week 3

Field Trip: UCSB North Campus Open Space Restoration Project, *details TBA*

Week 4

Environment 2: Social Constructions of Nature, Wilderness

Selected readings from:

- Ben Minteer, "An Appraisal of the Critique of Anthropocentrism..." *Organization and Environment*, 18:2, 2005, 163-176.
- William Cronon, "The Trouble with Wilderness." in *Uncommon Ground*, 1995, 69-90.
- Donald Waller, "Getting back to the Right Nature." in *The Great New Wilderness Debate*, 1998.
- Excerpts from Burroughs, *The Art of Seeing Things*, 2001
- J. Emel, "Are you man enough, big and bad enough? Wolf Eradication in the U.S.," in J Wolch and J Emel, *Animal Geographies*, 1998, 91-116.
- Kate Soper, *What is Nature?*
- Tu Wei Ming, "The Continuity of Being: Chinese Visions of Nature," 1984
- Poem: Basho

Week 5

Energy & Climate 1: Causes and Consequences of Climate Change

- Nogués-Bravo, David, Francisco Rodríguez-Sánchez, Luisa Orsini, Erik De Boer, Roland Jansson, Helene Morlon, Damien A. Fordham, and Stephen T. Jackson. "Cracking the code of biodiversity responses to past climate change." *Trends in Ecology & Evolution* (2018).
- Barnard, Anne and Haner, Josh. "Climate Change Is Killing the Cedars of Lebanon", *New York Times*, 2018
- Brook, Barry W., and Corey JA Bradshaw. "Key role for nuclear energy in global biodiversity conservation." *Conservation Biology* 29, no. 3 (2015): 702-712.
- Excerpts from "The Carbon-Free City Handbook", Rocky Mountain Institute

Week 6

Energy & Climate 2: Energy, Climate, and Environmental Politics

Selected readings from:

- Poem: Seamus Heaney, Höfn

- Pope Francis, *Laudato Si*, ch. 3-5, available at:
https://w2.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si_en.pdf
- Philip Warburg, *Harness the Sun* TBD
- Kari Norgaard, 2010, *Living in Denial: Climate Change, Emotions and Everyday Life*, Cambridge, MA: MIT Press, Introduction and ch. 3.
- Amory Lovins, “What is real Security?”
- “Losing Earth: The Decade that almost stopped Climate Change”
- Bell, “What to do about Climate Change”
- E. A. Wrigley, *Energy and the English Industrial Revolution*, Cambridge, 2010, ch. 1-2.
- David S. Painter, “Oil and the American Century,” *Journal of American History*, 99, 2012, 24-39.
- Paul Baer and Thomas Athanasiou, “The Right to Development in a Climate Constrained World,” Executive Summary, Revised Second Edition, 2008, available at:
https://in.boell.org/sites/default/files/downloads/Themenpapier_GDR-2ndeEdFinal.pdf

Week 7

Food 1: Soil, Agriculture, and Feeding the World

- Poem: “Hunger”: Kim Chi Ha (Korea)
- “Conservation and Local Economy”, Wendell Berry from *Sex, Economy, Freedom and Community*
- DeWeerd, Sarah “Can Local Food Feed an Urban World?” *Anthropocene Magazine*, 2018.
- Khan, Amina. “Organic Agriculture Can Feed the World But Only If We Eat Less Meat and Stop Wasting Food”, *Los Angeles Times*, 2017.
- Johnson, Nathanael. “This is Roquette Science: How Computerized Arugula (aka roquette) Farms Take Over the World” *Anthropocene Magazine*, 2018.

Week 8

Food 2: Population Growth, Production, and Consumption

Selected readings from:

- Excerpts from Michael Pollan, *The Omnivore's Dilemma*, 2006
- Excerpts from Richard Manning, *The Oil We Eat*, 2004 (426)
- Excerpts from Robert Stock, *Africa South of the Sahara*, 2004
- Towards a Just Way of Eating
- Marcus, *Meat Market: Animals, Ethics and Money*, 2005
- D. Goodman, *Globalizing Food*, 2002
- Anup Shah, *Ecology and the Crisis of Overpopulation*, 1998
- Vandana Shiva, The Hijacking of the Global Food-supply
- poem: Ode to Wine?

Week 9

Resource Consumption 1: Materials Consumption and Waste Production

- Pearce, Fred. “Are We Approaching Peak Stuff?” *Anthropocene Magazine*, 2018.

- UN Report on Resource Use, December 2017
- Larmer, Brooke. "E-Waste Offers Economic Opportunity as well as Toxicity," New York Times Magazine, 2018.
- Minter, Adam. "How We Think About E-Waste Is in Need of Repair", Anthropocene Magazine 2016.
- UN Environment: "Our World is Drowning in Plastic Pollution"
- Parker, Laura. "Planet or Plastic?" National Geographic, 2018.
- Parker, Laura, and Elliott, Kennedy. "Plastic Recycling is Broken: Here's How to Fix It", National Geographic, 2018.
- Wilhelm, Menaka. "Tajiguas Landfill Gets Expedited Expiration Date", Santa Barbara Independent, 2018.

Week 10

Resource Consumption 2: Consumption, the Commons, and the Economics of Sustainability

Selected readings from:

- Harding, "The Tragedy of the Commons," *Science*, 1962: 1243-8.
- Lélé Sharachandra, "Sustainable Development: A Critical Review," *World Development*, 19:6, 1991, 607-621
- Theodore Panayotou, *Green Markets: The Economics of Sustainable Development*, 1993
- Juliet Schor, *Plenitude: The New Economics of True Wealth* (Penguin Press 2010) chap. 2.
- TerraChoice Environmental Marketing, *The Six Sins of Greenwashing*, 2007
- Elinor Ostrom, *Governing the Commons* (Cambridge, 1990), pp. 1-8, 58-88.

Week 11

Pollution 1: Land, Air, Water & Environmental Justice

- *Silent Spring* by Rachel Carson. Chapter 8: "And No Birds Sing"
- Sullivan, Timothy J., Charles T. Driscoll, Colin M. Beier, Dallas Burtraw, Ivan J. Fernandez, James N. Galloway, David A. Gay et al. "Air pollution success stories in the United States: The value of long-term observations." *Environmental Science & Policy* 84 (2018): 69-73.
- Lawrence, Michael J., Holly LJ Stemberger, Aaron J. Zolderdo, Daniel P. Struthers, and Steven J. Cooke. "The effects of modern war and military activities on biodiversity and the environment." *Environmental Reviews* 23, no. 4 (2015): 443-460.
- Scott, Sam. "What Bikini Atoll Looks Like Today", Stanford Magazine 2017.

Week 12

Pollution 2: Culture of Risk, Environmental Politics, and the Human Body

Selected readings from:

- David Marples, "Introduction", in Grigori Medvedev, *No Breathing Room: The Aftermath of Chernobyl*, 1993
- Excerpts from R. Bullard, *Dumping in Dixie: Race, class, and Environmental Quality*, 1990
- Robert D. Bullard, "Dismantling Toxic Racism," *The Crisis*, Jul/Aug 2007, pp. 22-25.
- Excerpts from P. Slovic, *The Perception of Risk*, 2000

- R. Kasperson, E. Golding et al., “Social Distrust as a Factor in Siting Hazardous facilities and communicating Risks,” *Risk Analysis*, 26(5): 1395-407
- Robert D. Bullard, “Dismantling Toxic Racism,” *The Crisis*, Jul/Aug 2007, pp. 22-25.
- Javier Auyero and Débora Alejandra Swistun, *Flammable: Environmental Suffering in an Argentine Shantytown*, Introduction, ch 2, 4.
- Mike Davis, *Ecology of Fear*

Week 13

Water 1: Watersheds, water quality, drought, and floods

- Overviews of watersheds in South Coast Region of California:
<http://coastalwatersheds.ca.gov/Watersheds/SouthCoast.aspx>
- Gumprecht, Blake. "Who Killed the Los Angeles River." *Land of Sunshine: An Environmental History of Metropolitan Los Angeles* (2005): 115-134.
- U.S. Environmental Protection Agency Fact Sheets on National Rivers and Streams Assessment (2009), National Lake Assessment (2012), and National Wetland Assessment (2011)
- DeNicola, Erica, Omar S. Aburizaiza, Azhar Siddique, Haider Khwaja, and David O. Carpenter. "Climate Change and Water Scarcity: The Case of Saudi Arabia." *Annals of Global Health* 81, no. 3 (2015): 342-353.

Week 14

Water 2: Resource for a Growing Population, and Political Implications

- Prasannan Parthasarathi (2017). “Water and Agriculture in Nineteenth-Century Tamilnad,” *Modern Asian Studies* 51, 2 pp. 485–510.
- Excerpts from Elizabeth Economy, *The River Runs Black. The Environmental Challenge to China’s Future*, 2004.
- OECD, “Water and Security in the Middle East”
- Ken Saro-wiwa, *Genocide in Nigeria: The Ogoni Tragedy*, 1992

Week 15

Pathways

Selected readings from:

- Mark Shepard, “Hug the Trees!” Chandi Prasad Bhatt, Gaura Devi, and the Chipko Movement,” available at: http://www.markshep.com/peace/GT_Chipko.html
- Paul Hawken, *Blessed Unrest*, New York, 2007, chap. 1, pp. 1-8.
- Michael Mann and Tom Toles, *The Madhouse Effect*, chap. 8.
- Robert Kunzig, “Germany Could be a Model for How We’ll Get Power in the Future,” *National Geographic*, November 2015:
<https://www.nationalgeographic.com/magazine/2015/11/germany-renewable-energy-revolution/>
- Poem: Mary Oliver
- Ch6 Bouma Prediger: “What Kind of People Ought We Be? Earth-Care and Character”