ENVS 101: CASE STUDIES IN ENVIRONMENTAL ISSUES
   Concepts, Contexts, and Conundrums

General Information

Course Instructors
Jonathan Wilson  Biology, ENVS  Sharpless 308  jwilson@haverford.edu
Helen White      Chemistry, ENVS  KINSC E303  hwhite@haverford.edu
Office hours:  W 2:30–3:30pm (Haverfarm), also by email appointment

Lectures:  T, Th 11:30-1pm  Hilles 109
Recitation:  2 hours, approximately every two weeks as scheduled
Field Trips:  Approximately three over the course of the semester
Moodle:  https://moodle.haverford.edu/course/view.php?id=337

Course description
Through case studies rooted in environmental issues, this course will offer a cross-disciplinary introduction to environmental studies. Tracing an arc from historical analysis to practical engagement, distinctive approaches to key categories of environmental inquiry are presented: political ecology, earth science, energy, economics, eco-literature, public health, ecological design, sustainability, policy, and environmental justice. Basic concepts—such as thermodynamics, biodiversity, cost-benefit analysis, contamination, governance, the Anthropocene, and the commons—are variously defined and employed within specific explorations of environmental challenges in the modern world.

What’s different about this course: PACC (Philadelphia Area Creative Collaborative)
This year, ENVS 101 will have an extensive praxis component. As a class, we will be working on an artist collaboration with the Environmental Studies Senior Capstone (ENVS 397), a visual and performance artist, Li Sumpter, and three community groups: the East Park Revitalization Alliance (EPRA), the Friends of Mt. Moriah Cemetery, and the North Philly Peace Park. This is the first time that a collaboration of this scope has been attempted at Haverford.

This collaboration will require outside work, meeting with community partners in the city, and will involve cancelling certain class times in order to meet with partners and ENVS 397. It is a unique opportunity to blend classroom learning with practical community collaboration. If you are not certain that you can manage this, there are other ENVS 101 classes to choose from. (Bryn Mawr will be teaching a classroom-based version in the spring). The final outcomes of this collaboration are likely to take a variety of forms, including developing environmental education exercises for EPRA, the Peace Park, and Mt. Moriah Cemetery. If you are willing to join us, we would be grateful to have you.

Textbooks and readings
Much of the reading from this course will be of articles, from journalism to anthropological and scientific papers, but there will be three books you will be required to read (available at the bookstore):


Excerpts from: *Four Fish*, Paul Greenberg; *Silent Spring*, Rachel Carson; *The End of Nature*, Bill McKibben; *Something New Under the Sun: An Environmental History of the Twentieth-Century World*, J.R. McNeil; *Confronting Environmental Racism*, Robert Bullard (ed.); *Drawdown*; and others. **These excerpts and other readings will be provided as PDFs on the course Moodle page.**

**Grades**

- 28% Weekly writing assignments (*blog posts*)
- 30% Assignments (*divided evenly between projects for each case study*)
- 20% Final examination (*in-class on the final day: December 14th*)
- 10% Final project for PACC (*includes both the project and a reflection*)
- 10% Discussion and recitation: attendance, preparation, and participation
- 2% Mandatory office hours visit (*in groups of 2 or 3*) **before Fall Break**

**Course Schedule**

This is a general overview of the material we will cover in this course. **Much more detailed information, including a weekly schedule of readings and assignments can be found on the course Moodle page.**

**ORIENTATION AND HISTORY (weeks 1-2)**

> “An argument about what to do going into the future, about the present, without a grounding in the past, is an argument likely to fail.” — Erik Loomis, Historian, University of Rhode Island

At the beginning of the course, we’re going to look at two tracks of history: the history of the planet, and the history of human engagement with environmental problems. We’re then going to give you a crash course in different disciplines’ methodologies and will wrap up the beginning by considering the multiple meanings of the word “environment” in a mapping project. Where possible, this introduction will introduce key terms in the context of the city we will be working in: Philadelphia.

**CASE 1: Food (weeks 3-6)**

> “I was there, I can prove it! When I was a kid, you could buy meat anywhere! Eggs they had, real butter!” — Edward G. Robinson as “Sol Roth” in *Soylent Green* (1973)

In this case study, we’ll look closely at food and the food system, a major locus of environmental activity. We’ll look at agriculture, food production, and hazards, both real and imagined.

Topics:
- Food on land and in the ocean
- Social values of food
- Tradeoffs of mass production and small-scale production
- Biodiversity, monoculture, and extinction of the banana
- Genetically modified food
- Urban agriculture
CASE 2: Climate Change (weeks 6-10)

"Thus, the following things are by natural law common all—the air, running water, the sea, and consequently the sea-shore." — Institutes of Justinian, published 533 C.E., edited by Tribonian

In this case study, we’ll examine the largest and most complex environmental issue: climate change. What are the scientific, ethical, and political issues surrounding climate change? We’ll discuss the processes and projected impacts, along with adaptation to and mitigation of climate change.

Topics:
- The water and carbon cycles
- The global climate system
- Regulating pollutants: DDT, leaded gasoline, CFCs
- Mythbusters and predicting the future
- Paris agreement and the future of international cooperation

CASE 3: Natural and unnatural disasters (weeks 10-14)

"Many of the stories we hear about sudden natural disasters are about the brutally selfish human nature of the survivors, predicated on the notion that survival is, like the marketplace, a matter of competition, not cooperation. Cooperation flourishes anyway." — Rebecca Solnit, Author

Finally, we’re going to expand upon our discussion of climate change and focus on disasters, both natural and unnatural—and what that distinction means. This will tie in with our previous discussions of the Anthropocene and our ongoing work with PACC collaborators.

Topics:
- Donora Fog, Johnstown Flood, Centralia Fire
- Water and power: dams in China, dams in the United States
- Scarcity and political ecology: Cadillac desert and “Chinatown”
- “A Paradise Built in Hell”
Lecture topics may change, but consider this a guide to the course:

**Schedule:** Introduction, Food, Climate Change, Natural and Unnatural Disasters

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Lecturer</th>
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<tbody>
<tr>
<td>9/5</td>
<td>Introduction to the course and your instructors, syllabus review, course expectations.</td>
<td>JW, HW</td>
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<td>Case study example: Hurricane Harvey</td>
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<td>9/7</td>
<td>History of the Earth through the Anthropocene</td>
<td>JW</td>
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<td>9/12</td>
<td>Humans and the Environment</td>
<td>JW</td>
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<td>9/14</td>
<td>Reading: Guha, part 1: First Wave of Environmentalalism</td>
<td>JW</td>
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<td>9/16</td>
<td>Population growth &amp; the Environment</td>
<td>HW</td>
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<td>9/19</td>
<td>Visit to class by Li Sumpter, PACC artist</td>
<td>HW</td>
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<td>9/21</td>
<td>Reading: Guha, part 2: Second Wave of Environmentalalism</td>
<td>JW</td>
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<td>9/24</td>
<td>Food in its environment (Haverfarm visit)</td>
<td>HW</td>
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<td>9/26</td>
<td>PACC Visit to nonprofit site</td>
<td>JW</td>
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<td>9/28</td>
<td>Biodiversity, monoculture, and the extinction of the banana</td>
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<td>10/3</td>
<td>Pesticides, Poisons, Contamination &amp; Toxicity</td>
<td>HW</td>
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<td>10/5</td>
<td>GMOs and global markets</td>
<td>JW</td>
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<td>10/10</td>
<td>The water and carbon cycles (PACC: Catherine D’Ignazio)</td>
<td>HW</td>
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<td>10/12</td>
<td>The global climate system</td>
<td>JW</td>
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<td>10/24</td>
<td>Energy and climate</td>
<td>JW</td>
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<td>10/26</td>
<td>Climate history and future impacts</td>
<td>JW</td>
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<td>10/31</td>
<td>PACC Visit to nonprofit site</td>
<td>JW</td>
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<td>11/2</td>
<td>Mythbusters 1</td>
<td>JW, HW</td>
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<td>11/7</td>
<td>Mythbusters 2</td>
<td>JW, HW</td>
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<td>(PACC: Scott Kellogg [Radix Center, Permaculture] visit)</td>
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<td>11/9</td>
<td>Slow Violence and the Paris Agreement</td>
<td>JW</td>
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<td>11/14</td>
<td>Adaptation and mitigation / (PACC: Dylan Gauthier [Chance Ecologies] visit)</td>
<td>JW, HW</td>
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<td>11/16</td>
<td>Natural Disasters &amp; Human Activity</td>
<td>HW</td>
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<td>11/21</td>
<td>&quot;The Day After Tomorrow&quot;</td>
<td>JW, HW</td>
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<td>11/23</td>
<td>Thanksgiving! No class!</td>
<td>JW, HW</td>
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<td>11/28</td>
<td>PACC Visit to nonprofit site</td>
<td>JW</td>
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<td>11/30</td>
<td>Johnstown Flood, Donora Fog, Centralia Fire: a history of unnatural disasters in PA</td>
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<td>12/5</td>
<td>“Unnatural disasters”</td>
<td>HW</td>
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<td>12/7</td>
<td>Paul Hermann Muller and Thomas Midgley: unsung villains of the 20th century</td>
<td>JW</td>
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<td>12/12</td>
<td>Scarcity, utopia, and political ecology</td>
<td>JW, HW</td>
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<tr>
<td>12/14</td>
<td>In-class final exam</td>
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**Recitation movie list:** (*Note: this is subject to change*)

- Planet Earth 2: [Watch](https://youtu.be/c8aFchFu8QM)
- Red Gold: [Watch](http://youtu.be/7aqphQc4u4w)
- Food, Inc: [Watch](https://youtu.be/5eKYyD14d_0)
- Gasland: [Watch](http://youtu.be/dZe1AeH0Qz8)
- DamNation: [Watch](http://youtu.be/8X2dYnTX55E)
- The Day After Tomorrow: [Watch](http://youtu.be/Cs56_GqTylQ)
- When the Levees Broke: [Watch](http://youtu.be/IqCQVVvNASE)
- Soylent Green: [Watch](https://youtu.be/SVPn312hYgU)

**ENVS 101 Syllabus — Fall 2017 — Print this out and bring it to every class! You can obtain additional copies at the Moodle site.**
Course Policies

Guidelines
Topics in ENVS 101 will be discussed in more detail or from a different perspective than what is in the readings. *Attendance at all class sessions is a requirement of this course.*

Discussion
We will not agree, as a class, on every issue. Discussion is a place for all of us to explore and interrogate our ideas and, most of all, a place where we may all be wrong. In addition to the tenets of the Honor Code, ENVS 101 is a place to engage, disagree, and discuss with one another in good faith. Come to the class with good intentions and we will sharpen one another’s minds like good honing steel.

To that end, it is imperative to share the conversation with one another. A good rule of thumb is to let two or three others speak before you take the floor to speak again. You are meant to converse with each other, too, and not just with your instructors. Learn your classmates’ names and don’t be afraid to re-introduce yourself or ask for a reintroduction (it happens to all of us and there’s no shame in that)! In short:

*Conversation hogs: pipe down! Conversation ghosts: pipe up!*

Participation
Your physical presence is necessary, but not sufficient. Don’t be a spectator, be a participant. Be prepared to interact with your classmates, discuss the material in a seminar-like setting, and ask questions if things are unclear. Any planned absence (i.e., for athletic events or other special circumstances) must be discussed with the instructors as soon as possible.

Preparation
Readings will be assigned before each class; it is paramount that you do this reading before each class. History has shown that completing the readings before class is the single best predictor of a successful semester. Class lecture and discussion will be based on the assumption that you have done the reading. The discussion section of the class will be based on the readings and will be led by two students: each student will have the opportunity to lead class discussion at least once during the semester. A sign-up sheet will be available on the Moodle site for you to choose the discussion topic you wish to lead.

Weekly writing assignments (blog posts)
All students are required to submit two short writing assignments a week. These will take the form of blog posts and should be no longer than a paragraph (~ half a page). Each blog post must be made prior to 9pm on the night before Tuesday or Thursday class and discuss the reading for that day. Suitable blog posts include discussions relevant to the readings as well as response posts replying to other student’s posts. We encourage you to read one another’s posts and respond and engage in polite, well-informed conversation. Blog posts will begin with an entry for the second class, Thursday, *September 7th*.

Assignments/Projects
Each case study will have an associated project. They will take a variety of forms, including brief oral presentations to your classmates and written work. Details will be discussed in class and posted to the course Moodle page in advance of the assignments.

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Office hours visit
You are required to meet with your instructors at least once during their office hours before Fall Break. (This is not so we interrogate you, but rather that we will get to know one another and give you an opportunity to discuss whatever is on your mind.) There’s no preparation required, but attending this meeting will count for 2% of your final grade in the course. You may meet with us as an individual, or in groups of two or three students—it’s up to you! A sign-up sheet will be available on Moodle for you to choose a time to meet with us.

Field trips
We are hoping to organize multiple field trips for the entire class during the semester, particularly to PACC sites. The exact number depends on a number of logistical factors, but it should be more than one but less than four. Field trip attendance is mandatory; if you have a conflict (e.g., an out of town athletic event) you must let us know at least one week in advance. If you cannot attend a field trip, we will arrange for a self-guided substitute field trip: you will go to a place and report back to your instructors. If multiple students have a conflict, we may ask you to explore as a group.

Final examination
The final examination will on the last day of class (December 14th). Students will be given 90 minutes to respond to 2 out of 3 short essay-style questions pertaining to the overall themes of the class.

Final grades and course evaluations
Students will be asked to complete a course evaluation (via Moodle) at the end of the course. When each student has submitted a course evaluation, final grades will be released to the registrar.

Intellectual property
Unless otherwise specified, the course notes and materials are the property of the instructors and the College. Please do not share them without your instructors’ permission.

Honor code and collaboration
The Haverford College Honor Code, as outlined in the Catalog and administered by the Honor Council, applies to all submitted work in this class. Students are encouraged to work together and discuss class material when permitted (e.g., not during exams!). However, it is a requirement of the Honor Code for this course that you note the full name of working partners on each assignment. It is also a requirement that all submitted material is your own. You must acknowledge in writing any assistance you receive from the literature, other students, textbooks, internet, or any source but Prof. Wilson and Prof. White.

Recitation
The recitation section for this class will take a variety of forms, including but not limited to: films and other media, guest lectures, additional discussion groups, and review sessions. Recitation sections will occur approximately once every two weeks, and attendance is required. If you have a conflict with the time for recitation (e.g., athletic event, visiting speaker), please let your instructors and TAs know well in advance and make arrangements to borrow and watch the film from them or the library.

Accommodations/Disabilities
Haverford College is committed to supporting the learning process for all students. Please contact your professors as soon as possible if you are having difficulties in the course. There are also many resources on campus available to you as a student, including the Office of Academic Resources.
(https://www.haverford.edu/oar/) and the Office of Access and Disabilities Services (https://www.haverford.edu/ads/). If you think you may need accommodations because of a disability, please contact Sherrie Borowsky, Coordinator of Accommodations, Office of Access and Disability Services at hc-ads@haverford.edu. If you have already been approved to receive academic accommodations and would like to request accommodations in this course because of a disability, please meet with your professors privately at the beginning of the semester (within the first two weeks if possible) with your verification letter.

**Extensions**

Much of the work for the course will be done in groups, and you are encouraged to plan ahead and coordinate with your classmates to ensure that the assignments are completed on time. Your professors are reluctant to grant extensions for group work or individuals within a group, but in an emergency, please contact your professors well in advance of the due date and include in your extension request a new, specific deadline that you will meet. (For example, an extra 18 hours.) In the case of an event out of your control, please reach out to your Dean and have them contact your instructors. We cannot grant extensions for the course blog posts that reflect that day’s readings.