

# **Sustainable World**

NCLC 275: 002

4 Credits (1 credit EL embedded)

Monday 1:30 to 4:20, Robinson Hall A106

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## **Required Readings**

*The Sustainability Revolution: Portrait of a Paradigm Shift* by Andres R. Edwards with a forward by David Orr (New Society Publishers, 2005)

*Deep Economy: The Wealth of Communities and the Durable Future* by Bill McKibben (Holt Paperbacks, 2008).

The majority of readings for this class are available on the course Blackboard page.

## **Course Description**

This is designed to be the core course for George Mason University's Sustainability Studies minor. It includes 3 credits for class time and an additional 1 credit for the sustainability-related experiential learning component. Sustainability can be said to exist when the current generation can meet its material needs without compromising the ability of future generations to meet their material needs. Current levels of resource consumption and pollution are not sustainable. This course will focus on understanding the basic issues in the natural sciences and social sciences that underlie many of the world's current environmental problems. We will also consider ethical matters, such as equity, as they pertain to global resource consumption, pollution, and climate change.

Our time in the classroom as a learning community will combine discussion of readings and current events, mini-lectures, group projects, and active, inquiry-based learning. You will earn one credit of experiential learning through a combination of service learning and field experiences. This learning community places special emphasis on the following four competencies: **critical thinking, valuing, global understanding, and effective citizenship.**

## **Learning Objectives**

By the completion of the course, the successful student will be able to

- Define sustainability and describe methods of assessing sustainability.
- Describe the major environmental problems facing the United States and the world, the causes of these problems, and potential solutions.
- Analyze the economic, social, and moral implications of global resource use.
- Identify, research, and critically evaluate relevant information pertaining to environmental sustainability.

### **Experiential Learning**

You will earn one experiential learning credit in this class by completing 25 hours of sustainability-related service learning on campus and taking a day-long field trip off campus. You will choose your own service learning placement from a list your instructors provide. **You must complete the Experiential Learning requirement to earn a passing grade for this course.**

### **Required Work**

#### **Sources and Destinations Essay: Global Research Project (200 points)**

In this essay, you will carefully research the source(s) of everything in some item you consume in your everyday life—for example, your breakfast cereal, your shoes, your shampoo. You will also research, as appropriate, what happens to this item after you finish with it. Your challenge will be to deal with both the ecological and social impacts of the item you study. We will read and discuss model essays and you will receive detailed instructions for this assignment.

#### **Midterm (150 points)**

The take-home midterm will give you an opportunity to demonstrate your learning over the first half of the semester. Learning community members will discuss the content of midterm essay questions before the day of the exam. You may consult your notes and course readings while writing the midterm essays.

#### **Peer Teaching I: Reasons for Hope (100 points)**

Despite emphasis on impending environmental crises in the news, there are many ideas and technological advances that promote sustainability and provide us with hope. Examples include advances in solar technology, use of cloth shopping bags, and fair trade designations. Throughout the semester, groups of students will make short presentations describing hopeful ideas or events relating to our weekly themes. You will receive detailed instructions for this assignment.

#### **Peer Teaching II: Reports from the Field (100 points)**

At our last class meeting, you will work individually or in groups to teach other learning community members about the sustainability initiatives being conducted in the campus unit where you have done your service learning. You will receive detailed instructions for this assignment.

**Informal Writing (200 points—Directed Writing, 160; Sustainability Notebook, 40)**—There are two types of informal writing for the course, Directed Writing and the Sustainability Notebook.

- **Directed Writing**—Throughout the semester, you will do a number of brief (usually 2 pages) informal writings in response to prompts. These prompts will ask you to reflect on issues relating to sustainability, to respond to the weekly readings and activities, and to reflect on how your service learning experiences relate to your learning in other parts of the course. You will post these Directed Writings to Blackboard and will receive timely feedback.
- **Sustainability Notebook**—This is an ongoing record of details captured in the classroom, at home, and in the field. In Notebook entries you take notes during mini-lectures and class discussions; take notes on course readings; record details during field experiences; and set down good ideas that come to you when you don't have time to develop them. Think of these Notebook entries as a way of gathering raw materials that you can use later in Directed Writings, in your midterm and final portfolio essays, and in more formal course projects.

A final note about informal writing: I am not looking to make sure your grammar and spelling are perfect; rather, I want to see that you're engaging course materials and experiences with a great deal of energy and thought. When you're writing about course readings, it's a very good idea to quote from those readings and refer to specific parts of the text often. In general it's a good idea to be as concrete and specific as possible, whether you're writing about something you read or something you experienced. Making connections among your readings, our class lectures and discussions, and your experiences in the field is also extremely important. Maintaining a rich and detailed Sustainability Notebook is the best preparation for success on the midterm and the final portfolio.

**Course Portfolio** (150 points)—The portfolio gives you an opportunity to consolidate the various pieces of work you have done for the course and to reflect upon and synthesize your learning throughout the semester. It will include some already assigned components, such as your Sources Essay and your peer teaching materials, as well as some new written material. You will receive detailed portfolio instructions.

**Participation** (100 points)—Our class is a community. As members of this community, we all depend on each other not just to show up, but to be fully engaged in each and every class activity. This means coming to class on time and prepared, speaking and listening well during discussions, raising questions, and calling attention to current events that relate to this course. Participation also involves doing everything you can to make our weekend field trip run smoothly, and representing yourself, our class, and NCC well when you are engaged in service learning.

## **Policies**

### **Grading Scale**

<b>A+</b>	1000-970	<b>C+</b>	799-770
<b>A</b>	969-930	<b>C</b>	769-730
<b>A-</b>	929-900	<b>C-</b>	729-700
<b>B+</b>	899-870	<b>D</b>	699-600
<b>B</b>	869-830	<b>F</b>	599-0
<b>B-</b>	829-800		

### **Paperless Classroom**

Paper use is one of many important elements of campus sustainability. We will use the Blackboard online course management system to minimize paper use. Learning community members will also engage in a discussion on the first day of class about strategies for conserving paper. Our aim is to collaboratively adopt policies that will balance academic needs with resource conservation concerns.

### **Late Work**

Papers and other assignments are to be submitted before the beginning of class on the day due. Late work will be reduced one grade per day. No work will be accepted over one week late without a valid written medical excuse or notice of death in the family.

### **Honor Code**

When you enrolled in this course you agreed to abide by the university's Honor Code. The Honor Code does not preclude collaborative work, such as informal discussions and studying in communities. Nor does it preclude assigned group work. The Honor Code does require that work you, as an individual, turn in ultimately be the product of your own individual synthesis or integration of ideas, and that the work a group turns in ultimately be the product of the group's collective ideas. If you are uncertain of the line between collaboration and cheating, see an instructor. As always, cite your sources. If you do not, it is plagiarism. Plagiarism means lifting someone else's ideas or words and presenting them as your own without proper attribution of the source. This includes all sources, including those found on the Internet. Use an approved citation method, such as MLA, APA, etc.

### **Diversity Statement**

New Century College is an intentionally inclusive community that celebrates diversity and strives to have faculty, staff and students that reflect the diversity of our plural society. We do not discriminate on the basis of race, class, linguistic background, religion, gender identity, sex, sexual orientation, ethnicity, age, or physical ability.

### **Accommodations for Students with Disabilities**

If you are a student with a disability and you need academic accommodations, please see the instructors and contact the Disability Resource Center (DRC) at 703.993.2474. All academic accommodations must be arranged through that office.

**Laptops**

You are welcome to bring a laptop to class and use it for class-related purposes (e.g. taking notes). During class please refrain from using your laptop for purposes not related to class (e.g. email, IM, surfing the Internet).

**Email**

GMU faculty and staff may only correspond with students through the students' GMU assigned email accounts. Emails sent from other accounts will not be answered.

**Blackboard**

To access blackboard, type [courses.gmu.edu](http://courses.gmu.edu) into the URL address bar of the web browser of your choice. Enter the username and password from your GMU email account.

**Sustainable World  
Course Schedule**

	<b>Topics &amp; Due Dates</b>	<b>Readings and Resources</b>
<b>8/31</b>	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Blackboard Demo</li> <li>• Peer Teaching Groups</li> <li>• Service Learning Options</li> </ul> <p>Guest Speaker: Colin Bennett, George Mason Office of Sustainability</p> <p>Film: <i>The 11<sup>th</sup> Hour</i></p>	
<b>9/14</b>	<p><b>Sustainability—History and Frameworks</b></p> <p>Guest Speaker: Dr. Dann Sklarew, Environmental Science &amp; Policy</p> <p><b>Campus Sustainability</b></p>	<p>Edwards Introduction and Ch. 1: “The Birth of Sustainability.”</p> <p>David Orr. “Four Challenges of Sustainability.” Oberlin College Lecture, April 3, 2003. <b>Blackboard</b></p> <p>Christopher Uhl. “Process and Practice: Creating the Sustainable University.” From <i>Sustainability on Campus: Stories and Strategies for Change</i>. Ed. Bartlett &amp; Chase. Cambridge: MIT Press, 2004. <b>Blackboard</b></p> <p>Anthony D. Cortese. “Integrating Sustainability in the Learning Community.” <i>Facilities Manager</i> 21:1, February 2005. <b>Blackboard</b></p> <p>Resources: GMU Sustainability Office website: <a href="http://green.gmu.edu/">http://green.gmu.edu/</a></p>
<b>9/21</b>	<p><b>Fall for the Book Sustainability Day (meet under M&amp;T Bank Tent, outside Johnson Center)</b></p> <p>Visiting Author: Robert K. Musil.</p> <p><b>2<sup>nd</sup> Half of Class (in classroom): Global Population Growth</b></p>	<p>Ecological Footprint Quiz at <a href="http://www.myfootprint.org">www.myfootprint.org</a></p> <p>McKibben Chapter 1: “After Growth.”</p> <p><i>The Habitable Planet</i>, Unit 5: “Human Population Dynamics.” <b>Blackboard</b></p> <p>Rev. Dr. James A. Nash. “Making Moral Connections: Population, Environment, and Consumption.” Pop!ulation Press Vol 3, # 3,</p>

	<b>&amp; Ecological Footprints</b>	March/April 1997. <b>Blackboard</b>
<b>9/28</b>	<b>No Class Today: Yom Kippur</b>	
<b>10/5</b>	<p><b>Climate Change</b></p> <p>Film: Thomas Lovejoy, “Climate Change: Prospects for Nature.” Aquinas College, April 24, 2009. (75 min.)</p> <p>Short Film: <i>The Story of Stuff</i> (20 min.)</p> <p>Discuss Sources and Destinations Essay Assignment</p>	<p>Thomas Lovejoy. “Climate Change: Prospects for Nature.” The Heinz Center, 2007. (Slides for today’s film). <b>Blackboard</b></p> <p>Intergovernmental Panel on Climate Change. <i>Climate 2007: Synthesis Report</i>. <b>Blackboard</b></p> <p>Mike Tidwell. “Snap Into Action for the Climate.” <i>Orion</i>: May/June, 2008. <b>Blackboard</b></p> <p>Bill McKibben. “When Words Fail.” <i>Orion</i>: July/August, 2008. <b>Blackboard</b></p> <p>Resources: 350: <a href="http://www.350.org">www.350.org</a> we: <a href="http://www.wecansolveit.org">www.wecansolveit.org</a> Intergovernmental Panel on Climate Change: <a href="http://www.ipcc.ch/">http://www.ipcc.ch/</a></p>
<b>10/13</b>	<p><b>Biodiversity &amp; Natural Resources</b></p> <p>Film: <i>Elephant Power</i></p> <p>Midterm Exam Review</p> <p><b>Sources and Destinations Topic Exploration Due on Blackboard before class</b></p>	<p><i>The Habitable Planet</i>, Unit 9: “Biodiversity Decline.” <b>Blackboard</b></p> <p>Edwards Chapter 4: “Sustainability and Natural Resources.”</p>
	<b>TAKE-HOME MIDTERM DUE ON BLACKBOARD BEFORE CLASS BEGINS MONDAY 10/19</b>	
<b>10/19</b>	<b>Food</b>	McKibben Chapter 2: “The Year of Eating

	<p>Film: <i>The Future of Food</i></p> <p>Reasons for Hope: LAP, Rande, Pujita, Amanda, Stacey</p>	<p>Locally.”</p> <p>Michael Pollan. “Power Steer.” <i>New York Times Magazine</i>: March 31, 2002. <b>Blackboard</b></p> <p>Wendell Berry. “The Pleasures of Eating.” Reprinted from <i>What Are People For?</i> New York: FSG, 1990. <b>Blackboard</b></p>
<b>10/25</b>	<p><b>Polyface Farm Visit</b> 9 a.m. departure 7 p.m. return</p>	
<b>10/26</b>	<p><b>Energy</b></p> <p>Film: <i>Kilowatt Ours</i> (55 min)</p> <p>Reasons for Hope: Kat, Brennon, Lauren T., Sarah</p> <p>Guest Speaker: Andrea Baruzzi, George Mason Libraries—Sources &amp; Destinations Resources</p>	<p>Chad Heeter. “The Oil in Your Oatmeal.” <i>San Francisco Chronicle</i>: March 26, 2006. <b>Blackboard</b></p> <p>Tillman and Hill. “Corn Can’t Solve Our Problem.” <i>The Washington Post</i>: March 25, 2007. <b>Blackboard</b></p> <p>“American Energy: The Renewable Path to Energy Security.” Worldwatch Institute: 2006. Read pp. 21-33. <b>Blackboard</b></p>
<b>11/2</b>	<p><b>Building and Design</b></p> <p>Guest Speaker: Dr. Sharon de Monsabert, Volgenau School (1:45 to 2:45)</p> <p>Reasons for Hope: Abram, Sam, Tracy, Dave, Rami</p> <p><b>Outline and Annotated Bibliography for Sources and Destinations Essay due on Blackboard by 11 p.m.</b></p>	<p>Edwards Chapter 5: “Sustainability and Ecological Design.”</p> <p>McDonough and Braungart. “The Cradle-to-Cradle Alternative.” <i>State of the World</i>. Worldwatch Institute, 2004. <b>Blackboard</b></p> <p>Masria and Kershner. “2030 Blueprint.” <i>Architecture 2030</i>, 2008. <b>Blackboard</b></p>
<b>11/9</b>	<p><b>Transportation</b></p> <p>Reasons for Hope: Tasha, Isha, Lauren P., Abbey, Nya</p>	<p>James Howard Kunstler. “Making Other Arrangements.” <i>Orion</i>: January/February 2007. <b>Blackboard</b></p> <p>Stephanie Corson. “Private Transportation vs. Mass Transit: The Environmental Aspects.” <b>Blackboard</b></p>

		<p>Derrick Z. Jackson. "Derailing Amtrak." <i>Boston Globe</i>: February 9, 2005.  <b>Blackboard</b></p> <p>McCarthy, Woolf, and Harrison. "Revealed: The Real Cost of Air Travel." <i>The Independent</i>: May 27 2005.  <b>Blackboard</b></p>
11/16	<p><b>Consumption &amp; Waste</b></p> <p>Film: <i>The Electronic Wasteland</i> (12 min.)</p> <p>Film: <i>Chris Jordan Pictures Some Shocking Stats</i> (11 min.)</p>	<p>McKibben Chapter 3: "All for One."</p> <p>Alan Weisman. "Polymers are Forever." <i>Orion</i>: May/June 2007.  <b>Blackboard</b></p>
11/23	<p><b>Social &amp; Economic Justice</b></p> <p>Film: <i>China Blue</i></p> <p>Reasons for Hope: Shelby, Lonnie, Mark, BC, John</p>	<p>McKibben Chapter 5: "The Durable Future."</p> <p>Vandana Shiva. "Principles of Earth Democracy." <i>Earth Democracy: Justice, Sustainability, and Peace</i>. Cambridge: South End Press, 2006.  <b>Blackboard</b></p> <p>Eric Reese. "Moving Mountains." <i>Orion</i>: January/February 2006.  <b>Blackboard</b></p>
11/25	<p><b>Sources and Destinations</b>  <b>Essay due on Blackboard by 11 p.m.</b></p>	
11/30	<p><b>Media, Communication, Behavior Change</b></p> <p>Guest Speaker: Dr. Ed Maibach, Mason Center for Climate Change Communication</p>	<p>Moser and Dilling. "Making Climate Hot: Communicating the Urgency and Challenge of Global Climate Change." <i>Environment</i> 46:10 (Dec 2004).  <b>On E Reserve</b></p> <p>Doug McKenzie-Mohr. Introduction to <i>Fostering Sustainable Behavior</i>.  <b>Blackboard</b></p>
12/7	<p><b>Peer Teaching II: Reports from the Field</b></p>	
12/14	<p><b>Course Portfolio and Sustainability Notebook due</b></p>	

