

Donna Charley-Johnson
Ecosphere in Crisis 26-104
Lab Syllabus
Section A07
Halsey Science 110

Instructor: Donna Charley-Johnson, M.S.

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Office Hours: Tuesday 12:40-1:20 or by appointment

Text: The Post Carbon Reader: Managing the 21st Century's Sustainability Crisis, Ed. Richard Heinberg and Daniel Lerch, 2010 Post Carbon Institute (**Available free online-links in the syllabus**)

Objectives:

- To supplement concepts presented in lecture with hands-on, experiential, and inquiry based activities and discussions,
- To emphasize a significant understanding of basic scientific principals and thereby facilitate educated decision making,
- To provide the opportunity to assess personal environmental impact generally as well as more specific quantitative analyses,
- To present materials from the perspective of sustainability and solutions, i.e. yes, we know things are bad, so what can we do about it?
- To present material with relevance to Wisconsin.

Grading: Lab is worth 1/3 of your final grade. Your lab grade will be determined as follows:

Assessments (2)	= 50%
Assignments	= 30%
Participation/Attendance	= 20%

Assessments: These will be a short (approximately 60 minutes) series of questions that ask the student to express and apply the information studied in previous weeks.

Assignments: Assignments will include journaling exercises, lab reports, and personal environmental impact assessments. Unexcused late assignments will NOT be accepted. If you are sick or otherwise unable to attend lab either email the assignment or make arrangements to make up the assignment prior to the missed lab.

Participation: Will be tallied on a weekly basis based on your vocal participation in class discussion. Discussions will be based on assigned readings/assignments. Study guides for the assigned readings will be available on D2L. Each week will also start with local (Wisconsin) environmental news which students are encouraged to contribute to, for which they will receive participation credit.

Attendance: Attendance will be taken at the beginning and, if necessary, end of class.

Cell Phone/Texting Policy:

I have a zero tolerance policy for cell phones and texting in class. If you are observed using your cell phone or texting during the lab period you will receive a zero for the day (attendance/participation/assignment).

Academic Policy: If you decide to cheat or engage in other forms of academic dishonesty you will be subject to the Student Academic Disciplinary Procedures as outlined in the Student Disciplinary Code (<http://www.uwosh.edu/dean>).

Schedule (subject to changes):

Wk	Date	Subject	Activities
1	Sept 6	Introduction: Doo and Gloom versus Hope	Introduction: An Ecosphere in Crisis? Film: "The 11 th Hour" Discussion
2	Sept 13	Ecosystems	Field Trip: South Woods
3	Sept 20	Communities	Field Trip: Horicon Marsh
4	Sept 27	Human Population: Wealth versus Happiness	Discussion: William N. Ryerson's "Population: The Multiplier of Everything Else," http://www.postcarbon.org/Reader/PCReader-Ryerson-Population.pdf Film: "World in the Balance: Nova" What if Money Didn't Matter/ <u>Affluenza</u> Activity (Wann, De Graaf, Naylor)
5	Oct 4	The Family Farm	Field Trip: Knigge Farm
6	Oct 11	Biodiversity: What about everybody else?	Discussion: Stephanie Mills "Peak Nature?" http://www.postcarbon.org/Reader/PCReader-Mills-Nature.pdf Activities: Biodiversity Quiz Show/AWisconsinBestiary.org
7	Oct 18	Assessment #1	Assessment #1
8	Oct 25	Climate Change: Intellect versus Emotion	Discussion: Bill McKibben's "Global Warming's Terrifying New Math," Rolling Stone, July 19, 2012. http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719
9	Nov 1	Water: Without it you die in 3 days!	Discussion: Sandra Postel's "Water: Adapting to a New Normal," http://www.postcarbon.org/Reader/PCReader-Postel-Water.pdf Activity: Transpiration and the impact of changing weather patterns.
10	Nov 8	Individual impact and thermodynamics	Discussion: Richard Heinberg's "Beyond Limits to Growth," http://www.postcarbon.org/Reader/PCReader-Heinberg-Limits.pdf Presentation of Ecological Footprint Data (myfootprint.org) Explanation and Demonstration of Thermodynamics
11	Nov 15	Natural Ecosystems Why do we need them?	Discussion: "Ecosystem Services: Benefits Supplied to Human Societies by Natural Ecosystems" by Daily, et.al. http://www.esa.org/science_resources/issues/FileEnglish/issue2.pdf Activities: Soil Lab: What kind of soil makes a good garden? Vermicomposting
12	Nov 22	Food: Is eating fossil fuels healthy?	Discussion: Michael Bomford's "Getting Fossil Fuels of the Plate," http://www.postcarbon.org/Reader/PCReader-Bomford-Food.pdf
13	Nov 29	Thanksgiving	No Class
14	Dec 6	Is solid waste normal?	Discussion: "Climate Change, Peak Oil, and the End of Waste," by Bill Sheehan and Helen Spiegelman http://www.postcarbon.org/Reader/PCReader-Sheehan-Waste.pdf Field Trip: Recycling in the Tri-County Area
15	Dec 13	Assessment #2	Assessment #2

