

Donna Charley-Johnson
Ecosphere in Crisis 26-104
Lab Syllabus
Section A06
Halsey Science 110

Instructor: Donna Charley-Johnson, M.S.

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Office: HS33

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

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	2/6	Introduction: Doom and Gloom versus Hope	Introduction: An Ecosphere in Crisis? Film: "The 11 th Hour" Discussion
2	2/13	Individual impact and thermodynamics	Discussion: Richard Heinberg's "Beyond Limits to Growth," http://www.postcarbon.org/Reader/PCReader-Heinberg-Limits.pdf Activities: Presentation of Ecological Footprint Data (myfootprint.org) Explanation and Demonstration of Thermodynamics
3	2/20	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
4	2/27	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	3/6	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 Film: "Forks over Knives"
6	3/13	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	3/20	Assessment #1	Assessment #1
8	3/27	Spring Break	Spring Break
9	4/3	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	4/10	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
11	4/17	How does drought affect a wetland?	Field Trip: Horicon Marsh
12	4/24	Survival of the family farm.	Field Trip: Knigge Dairy Farm
13	5/1	A trip through time in the valley Crystal Creek	Field Trip: Ceresco/South Woods

14	5/8	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	5/15	Assessment #2	Assessment #2