

Environmental Studies 699
GREEN SUMMER FREIBURG IN MADISON (1-3 Credits)

Global Health Institute Certificate

Room: On Wisconsin Room or MEZZ (Red Gym); or Union South – TBD

Dates: Tuesday, May 29 – Thursday, June 14 (2012)

Tuesdays and Thursdays: 8:15am - 12:00pm (*primarily classroom*)

Mondays and Wednesdays: 8:15am - 12:00pm (*primarily site visits*)

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WELCOME!

This course is designed around two catalysts: the Freiburg-Madison Sister City program, an ‘official’ relationship between the two cities which was initiated over twenty years ago, and also the many exchange programs that have existed between UW-Madison and Uni-Freiburg for over 45 years. The City of Freiburg is currently known as one of the most sustainable cities in the world and has been very supportive of helping its Sister Cities grow their green infrastructure capacity. The City of Madison and the UW-Madison have a unique and excellent partner to help support ‘green’ efforts in the greater Madison region.

The course is designed as a community-based learning course. We will learn together about environmental sustainability, its direct and vital relationship to global health issues, and how our efforts in Madison might be enhanced going forward. To put this into context, we will be using Freiburg’s globally-recognized successes as a basic benchmark. So in addition to learning about a variety of sustainability-related programs, projects and initiatives in Freiburg, we will work to identify existing sustainability-related initiatives and programs in Madison, and then envision what enhanced or new concepts might look like based on the Freiburg models. We will also complete a short service-learning project that has been integrated into the class structure (to make it feasible to fit within the short intersession time-frame).

COURSE GOALS

We have three basic goals for this course:

1. To learn about the link between health and sustainability.
2. To learn how sustainability concepts have been implemented in Freiburg, the background of their development, and the challenges involved in influencing government policy and business practices.
3. To develop a Madison “GreenTour Guide” by identifying current sustainability-related practices and destinations in Madison (service-learning component).

COURSE CREDITS

This syllabus is designed to meet a 2 credit requirement, though a '1 credit' option is available this year. For students interested in taking this as a 3 credit class, or the '1 credit' option, please consult with the co-instructors Ted Petith and Alfonso Morales.

SPECIAL LEARNING NEEDS

Please inform us if you have special learning needs so we can adjust the course to meet those needs.

CONSULTATIONS

Please consult with us by e-mail whenever you have a question about course assignments, lectures, discussions, or readings. We will gladly discuss questions you have about the course material. You may also consult with us whenever you find yourself interested in the issues raised in the course and you would like to discuss further or obtain additional information.

COURSE ORGANIZATION, REQUIREMENTS AND GRADING

In calculating your final grade, for the most part, we will base our assessment upon the completion of four major tasks. We believe that your efforts put into completing these tasks will have more learning values than the end product itself. That being said, however, you should not underestimate the workload required for completing each task.

The grading components are described below. For some components, we will be somewhat strict about the late penalty, since you can turn in assignments electronically even if you are infectious.

1. Readings and Viewings Comments (14 points total)

Cite three specific issues based on the materials assigned each week and offer comments or questions. Please indicate source and specific citation (author, article, page number, website address, or anything that can show which reading you got the information from). If you come to class with a set of questions or comments for a broader discussion, it will help us have an engaged and informative discussion. It could be as simple as three questions or three short comments, anything that arises from simple curiosity or critical commentary after reading the materials. Clear writing and accurate interpretation of the materials will be the grading criteria. The question submission for the week's readings is **due 11:59pm the day before class** (for example, an entry for Monday's reading is due on Sunday at 11:59pm) in the "Discussion" section in Learn@UW; this way everyone will have a chance to read, and to respond to, others' entries. Note that there is a **50% reduction in points for each day late**.

2. Class Learning Comments (total 31 points)

Cite three specific parts of each class session and briefly discuss what you learned from those portions of class. Total length will probably be between 200-300 words. Clear writing and accurate interpretation of in-class source material will be the grading criteria. The class learning submission is **due by 9pm on the day before the next class meeting** in the "Discussion" section in Learn@UW; **30% reduction in points for each day late**. To minimize potential duplications, responses to another student's entry can be counted as an entry as long as it follows the 200-300 words rule indicated earlier. If you miss a class you will not be able to complete this assignment, but that will only harm your grade if you do poorly on other requirements or miss multiple classes. Each submission will be worth 5 points, except the last submission that is worth a total of 6 points. Guidelines for the last entry will be discussed later.

- 3. Madison Sustainable Asset Map (22 points total)** The formula to assess how we will assign your total 22 points here is being developed. The tasks could include conducting online research and/or interviews with City staff, non-profit representatives, community leaders or sustainability experts. You might also be tasked to write brief informational descriptions about targeted sustainable areas and the 'green' practices that are of interest there. Some of this activity could also be geared toward providing multimedia backdrop for the tour booklet: this would include activities like 'real time' photos and video of places we visit in our field work, to help us document the special 'green' or 'sustainability' story of the sites we are highlighting for the GreenTour booklet/pdf. It may transpire that one or more of our group is sent back to a specific research site to follow-up on a particular topic of interest, record more video footage/pictures if we decide in class that more media or info is needed to represent it adequately. As we are researching and documenting, we will also be consistently reflecting on how what we are seeing and experiencing can be linked to important aspects of the global health dialogue. As we digest our field and document-based research, we will formulate approaches to how this global health-related issue can be woven into the storyline for the site we are highlighting. We will discuss ways of segmenting these tasks as part of our in-class planning and research activities.

4. "GreenTour" Booklet Draft Report (20 points total)

Upon the completion of the inventory development, we will work to compose a draft "report" which will be the foundation for the Madison Green Tour Guide. The length, the topics, the featured sites and whether it is an individual or a group task will be determined later after we learn together about the inventory. Most likely we will find strong working groups by dividing relative to geographic area (ie: a cluster of sites in similar geographic boundaries), skill-sets (ie: graphic design, video editing or other useful 'technical' experience), subject background knowledge, etc. The basic idea will be to have our multiple levels of planning work in synergy to help us to better and more efficiently refine our information stream.

5. In Class/In Field Participation (15 points total)

Just come prepared to participate and interact, and these points will be easy to get!

6. Extra Credit Opportunities (15 points total)

- a) To effectively complete a working Madison Green Tour Booklet will require areas of additional project effort beyond the basics of 'data' collection. Some of these efforts will be appropriate for extra credit and/or additional course credit. For those students wanting to complete 3 credits, we will work individually to plan how the content of this extra credit should be structured.

[Use for 0-15 extra points out of 15 total extra credit points allowed]

- b) The topics covered in this course constitute a fast immersion into many fields of study that would normally have their own extensive educational track (renewable energy production methods, energy efficiency techniques and technologies, sustainability initiatives and policies, etc.). The instructor(s) will work to simplify these concepts and highlight their importance to the field of global health. To help support this multi-faceted learning mix, extra credit will be available for short ¾-1 page write-ups of current articles (Article length: 4-5 pages total, or 3-4 shorter newspaper and/or web articles) that relate to one or more of these topics. The article(s) should have some relation to sustainability in Germany (preferably Freiburg or the greater Madison area). Each nicely-written, double-spaced, thoughtful representation of an article or web news segment is worth 1-2 points. Include an overview of topic being discussed, a concise summary of article, details on how the information presented in the media release relates to our discussion of global health and how it specifically relates to something we have seen in Madison or discussed about Freiburg. Please include basic citation and/or web-link infos.

[Use for 0-7 points out of 15 total extra credit points allowed]

Your final grade will be assessed as follows:

Grade	Points
A	94-102
AB	89-93
B	82-88
BC	77-81
C	70-76
D	63-69
F	62 or below

COURSE WEBSITE

This course is supported online, where you will submit your writing and engage in out-of-class discussion. You should be able to go to Learn@UW at <https://learnuw.wisc.edu/> to login, where you will see the course listed. This will be primarily for you to upload assignments. You can also use the "e-mail" link to contact your fellow classmates.

READINGS

All readings are available on the Internet. Some of them are in the form of electronic files that will be available at Learn@UW <https://learnuw.wisc.edu/>. For other readings, we will provide links that are all verified as of May 28th. Please let us know if you find any bad ones. We apologize to anyone using screen readers who must contend with only barely accessible pdf files. (If you are having extensive problems with this, please contact us.)

POWER POINTS

All Power Points reviewed in class will be accessible by link, web posting or other means by at least the next day after the presentation of the PP material. Many presentations will be accessible before the class where they are referenced. Students are encouraged to review these PPs in advance to enhance in-class discussions and exercises.

JOURNALING (AKA: PHOTOJOURNALING or NOISE LEARNING)

As we will not be constantly together conducting overseas field work, it is important that you reflect on what you are observing in Madison while you are involved in your other daily activities (ie: working, biking, grocery shopping, etc.). In your journaling, try to capture observations about the general environment around you, the quality of the buildings you are in, the composition of the streets you are walking or biking down, the types of foods you are buying, the amount of green-space vs. concrete, the ease of public (ie: bus) or personal (ie: bike) transportation, the types of energy production systems you see around you, the barriers to sustainable lifestyle options (ie: lack of bike paths, lack of green spaces, etc.) as you go through your routine outside of class. We will share some our 'journaling' observations at the beginning of each class period so that we can all enhance our knowledge of our Madison field site. Some of you may want to post your observations to the on-line forum for the Global Health Field Courses. Having a supply of notes (ie: June 4: "... just saw a bicycle delivery cart for XYZ Business going down Regent St. and he/she was moving MUCH faster than the motorized traffic ...") will give you a ready source of logged observations. This should be fun and quick – no rocket science here! Journals will be collected at the end of the course and will be integrated into the grading metric. The assumption is that you will be able to make at least 1 page of reflections on what you are observing outside of our class and field work every two days (certainly more, if you wish!), so your journal should be about 10-12 pages+ in length. All we ask is that you try to have your comments/notes be primarily sustainability and global health-oriented!

Journaling booklets will be provided by instructor on the first day of class.

<<<Please note that we may update/modify the content of the syllabus especially related to the list of guest speakers, readings, and sites visits. We may also add some additional readings or suggested readings. The topics are generally set>>>

COURSE CALENDAR

WEEK 1

Tuesday, May 29

INTRODUCTION: Global Health and Environmental Sustainability, Freiburg Germany, and Madison Green Tour Guide Booklet Project

Intro to Freiburg GreenCity:

- Ted Markus Petith: Intro Overview of Freiburg GreenCity (Power Point)
- Klaus Hoppe: In-Depth Overview of Freiburg GreenCity (Power Point)

Read/View:

- Freiburg GreenCity brochure and related GreenCity materials
http://www.fwtm.freiburg.de/servlet/PB/menu/1182949_l2/index.html (read Freiburg GreenCity Brochure),
http://www.fwtm.freiburg.de/servlet/PB/show/1199617_l2/GreenCity_E.pdf, review links, especially to Freiburg GreenCity Business Cluster,
<http://www.greencity-cluster.de/?L=1>).
- SolarRegion website
http://www.solarregion.freiburg.de/solarregion/freiburg_solar_city.php (read through the entries and note marketing effort and read 2004 "Cluster" study).
http://www.solarregion.freiburg.de/downloads/potentialstudie_english.pdf
- Madison-Freiburg Sister City Committee website <http://madisonfreiburg.org/> (review the entire website).
- Patz, Jonathan A.; Epstein, Paul R.; Burke, Thomas A.; Balbus, John M. (1996). Global Climate Change and Emerging Infectious Diseases. *Journal of The American Medical Association*, 275(3), 217-223.
- Purvis, Andrew. (March 22, 2008). Is this the greenest city in the world? *The Guardian*, March 28, 2012.
<<http://www.guardian.co.uk/environment/2008/mar/23/freiburg.germany.greenest.city>>.

Suggested readings:

- Grabow, ML; Spak, S; Sledge, J; Ventura, S; Patz, JA. (2009). Health Co-Benefits from Green Transportation: The Triple-Win Biking Project. *Epidemiology*, 20(6), S263-S263.
- Horrigan, Leo; Lawrence, Robert S.; Walker, Polly. (2002). How Sustainable Agriculture Can Address the Environmental and Human Health Harms of Industrial Agriculture. *Environmental Health Perspectives*, 110(5), 445-456.
- Lopez-Zetina, Javier; Lee, Howard; Friis, Robert. (2006). The link between obesity and the built environment. Evidence from an ecological analysis of obesity and vehicle miles of travel in California. *Health & Place*, 12(4), 656-664

- Patz, JA; Campbell-Lendrum, D; Holloway, T; Foley, JA. (2005). Impact of regional climate change on human health. *Nature*, 438 (7066), 310-317.
- Streetsa, David G.; Gupta, Shalini; Waldhoff, Stephanie T; Wang, Michael Q; Bond, Tami C.; Yiyun, Bo. (2001). Black carbon emissions in China. *Atmospheric Environment*, 35, 4281-4296
- Van Lenthe, F.J.; Brug, J.; Mackenbach, J.P. (2005). Neighbourhood inequalities in physical inactivity: the role of neighbourhood attractiveness, proximity to local facilities and safety in the Netherlands. *Social Science & Medicine*, 60, 763-775.

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

Wednesday, May 30

Site Visits:

- Dudgeon Monroe neighborhood (West-central)
- Isthmus neighborhood (Downtown)

Site Visits(s):

- Leah Samson-Samuel (President, Madison Environmental Group)
http://www.madisonenvironmental.com/aboutus_staff.html
<http://www.madisonenvironmental.com/projects.html>
- Orange Schroeder (Owner, Orange Tree Imports; President, DMNA Business Assoc.)
- Dudgeon-Monroe Neighborhood Assoc. rep

Read/View:

- ICLEI – Local Governments for Sustainability: <http://iclei.org/index.php?id=about> and <http://www.iclei.org/index.php?id=832>, then two briefing sheets: http://iclei.org/fileadmin/user_upload/documents/Global/Publications/Briefing_Sheet_Green_Urban_Economy_20110906_for_web.pdf and http://iclei.org/fileadmin/user_upload/documents/Global/News_Items/Image_Documents_web_news_11/Briefing_Sheet_Urban_Resilience_20110616.pdf.
- Horton, Jennifer. How Sustainable Communities Work. How Stuff Works, March 28, 2012 < <http://science.howstuffworks.com/environmental/green-science/sustainable-community.htm>>
- Leonard, Annie. The Story of Stuff. The Story of Stuff Project, March 29, 2012 < <http://www.storyofstuff.org/movies-all/story-of-stuff/>> (It is a 20-minute video)
- REAP (Research, Education, Action, and Policy on) Food Group, March 29, 2012. <<http://www.reapfoodgroup.org/>>

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

Thursday, May 31

Sustainable Living Neighborhood:

Urban Sustainable Development and Energy Efficient Buildings

Guest Speaker:

Steve Cover (Director of Planning, Community and Economic Development - City of Madison) ++in class or at City++, Steve Steinhoff (Capitol Area Regional Planning Commission – CARPC) ++in class or at MMB++

Freiburg GreenCity Power Point Presentation: Meinhard Hansen, Passivhaus Architect

Read/View:

- Sustainable City Network website: <http://www.sustainablecitynetwork.com/>
- Gordon, Peter and Richardson, Harry W. (1997). Are Compact Cities a Desirable Planning Goal? *Journal of the American Planning Association*, 63(1), 95-106.
- Lombardi, Rachel. (2012). Sustainable urban development – whatever the future brings. *Planning*, February 24, 2012.
<<http://www.planningresource.co.uk/news/1118321/sustainable-urban-development-whatever-future-brings/>>

Suggested Readings:

- Hinrichs, CC. (2000). Embeddedness and local food systems: notes on two types of direct agricultural market. *Journal of Rural Studies*, 16, 295-303.
- Community Car <<http://www.communitycar.com/>>
- Madison Environmental Group, LLC <<http://www.madisonenvironmental.com/>>
- Passive House Institute US <<http://www.passivehouse.us/>> (review the entire website).

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

WEEK 2

Monday, June 4

Madison Field Experience: Dudgeon Monroe neighborhood (Edgewood Boardwalk and Lake Wingra)

Freiburg Field Experience visitor:

Uwe Ladenburger - former founding Center Manager of Freiburg's "Solar Info Center" <http://www.sic-freiburg.de/sic/home.nsf/StartClassicEnglish?OpenFrameset>; GreenCity Business Cluster project planner <http://www.greencity-cluster.de/?L=1>; current

Technology Innovation Cluster planner for Uni-Freiburg and resident of award-winning and globally recognized neighborhood of Stadtteil Vauban.

Read/View:

- Roseland, Mark; Toward Sustainable Communities: Resources for Citizens and Their Governments. Chs, 1, 3, 4 and 13

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

Tuesday, June 5

**Sustainable Living Neighborhood:
Modes of Transportation and Food System**

Read/View:

- Stadtteil Vauban links (++)PDF brochure++)
- Rallph Buehler: Freiburg transportation presentation
<http://www.planning.org/tuesdaysatapa/2012/dc/feb.htm> (background)
<http://www.planning.org/tuesdaysatapa/2012/dc/feb.ppt> (PP presentation)
- Grabow, Maggie L.; Spak, Scott N.; Holloway, Tracey; Stone Jr., Brian; Mednick, Adam C.; and Patz, Jonathan A. (2012). Air Quality and Exercise-Related Health Benefits from Reduced Car Travel in the Midwestern United States. *Environmental Health Perspectives*, 120(1), 68-76.
- Hahn, Nancy I. (1997). Growing a Healthy Food System. *Journal of the American Dietetic Association*, 97(9), 949-950.

Suggested readings:

- Woodcock, James; Banister, David; Edwards, Phil; Prentice, Andrew M; and Roberts, Ian. (2007). Energy and transport. *The Lancet*, 370(9592), 1078-1088.

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

Wednesday, June 6

Sustainable Living Neighborhood

Madison Field Experience:

- ++Bus, Bike or Walk++Dudgeon Monroe neighborhood++if not on Monday with Uwe++
- ++Bus or Bike++Eagle Heights and EH Community Gardens++

Freiburg Field Experience visitor:

Uwe Ladenburger - former founding Center Manager of Freiburg's "Solar Info Center" <http://www.sic-freiburg.de/sic/home.nsf/StartClassicEnglish?OpenFrameset>; GreenCity Business Cluster project planner <http://www.greencity-cluster.de/?L=1>; current Technology Innovation Cluster planner for Uni-Freiburg and resident of award-winning and globally recognized neighborhood of Stadtteil Vauban.

Field Experience:

- ++Bus or Bike++Community GroundWorks; formerly known as Troy Gardens, <http://www.troygardens.org/>

Read/View:

- Vauban infos (++upload video segments++)
- Cassidy, A. and B. Paterson. (2008). A Planner's Guide to the Urban Food System. Post Carbon Cities. <<http://postcarboncities.net/node/3398>>
- Martinez et al. (2010). Local Food Systems: Concepts, Impacts, and Issues. USDA ERS Report Series. No. 87. <<http://www.ers.usda.gov/publications/err97/>>
- Mukherji and Morales. Zoning for Urban Agriculture, APA Zoning Practice, March 2010
- Morales, Alfonso and Lindsey Day-Farnsworth. Satiating the Demand: Planning for Alternative Models of Regional Food Distribution.

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

Thursday, June 7

Renewable Energy Production 1 (Solar, Wind)

Waste Stream and Brownfield

++Field Experience: East Washington Street – Capital East District++

Site Visits: Full Spectrum Solar; Sustain Dane; 7th Generation Energy Systems; Madison Metro Bus Barn

Freiburg Field Experience visitor:

Guest Speaker/Lecturer:

Uwe Ladenburger - first Center Manager of Freiburg's "Solar Info Center" <http://www.sic-freiburg.de/sic/home.nsf/StartClassicEnglish?OpenFrameset>; former GreenCity Business Cluster project planner <http://www.greencity-cluster.de/?L=1>; current Technology Innovation Cluster planner for Uni-Freiburg and resident of award-winning and globally recognized neighborhood of Stadtteil Vauban.

Read/View:

- ICLEI Local Renewables website: <http://local-renewables.org/home/>,
<http://local-renewables.org/why-local-renewables/>,
<http://local-renewables.org/why-local-renewables/why-cities/>,
<http://local-renewables.org/local-renewable-technology/>,
<http://local-renewables.org/why-local-renewables/importance-of-lg-action/>,
<http://local-renewables.org/why-local-renewables/challenges/>
and Freiburg-specific study,
[http://local-renewables.org/fileadmin/sites/local-renewables/files/04 Local Practice/01 Case studies and Descriptions/Freiburg%20104%20High%20Res.pdf](http://local-renewables.org/fileadmin/sites/local-renewables/files/04_Local_Practice/01_Case_studies_and_Descriptions/Freiburg%20104%20High%20Res.pdf)
- United States Environmental Protection Agency (US EPA). Urban Agriculture & Improving Local, Sustainable Food Systems,. <<http://epa.gov/brownfields/urbanag/>>
- American Planning Agency (APA). Reuse: Creating community-based brownfield redevelopment strategies.
- Baile Kauffman

Suggested readings:

- United States Environmental Protection Agency (US EPA). Urban Agriculture & Improving Local, Sustainable Food Systems,. <<http://epa.gov/brownfields/urbanag/>>

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

WEEK 3

Monday, June 11

Waste Stream and Brownfield

Field Experience:

Site Visits: ++City Recycling Center, MMSD++

Guest Speaker(s)/Lecturer(s):

- George Dreckmann (Recycling Coordinator, City of Madison)
- Michael Mucha (Director, Madison Metropolitan Sewerage District - MMSD)

Read/View:

- Environmental Protection Agency. Waste – Resource Conservation – Reduce, Reuse, Recycle. March 30, 2012. <<http://www.epa.gov/osw/conserve/rrr/recycle.htm>>

Tasks for students:

- readings comments are due at 11:59pm before class

- class learning comments are due at 9pm after class

Tuesday, June 12

Renewable Energy Production 2 (BioEnergy)

Guest Speakers: Don Wichert (Renew WI), Gary Radloff (WBI), Nadeem Afgan (BioFerm) or Daniela Rumpf (BioFerm) George Dreckmann (Recycling Coordinator, City of Madison)

Read:

- Intelligent Energy Europe site and videos
<http://ec.europa.eu/energy/intelligent/>
http://ec.europa.eu/energy/intelligent/promotional-tools/project-brochures/index_en.htm
http://ec.europa.eu/energy/intelligent/promotional-tools/videos/index_en.htm
- DENA (German Energy Agency) site and short renewable energy-related descriptions
<http://www.dena.de/en/topics.html>
<http://www.dena.de/en/projects.html>
- German-American Chamber of Commerce of the Midwest (GACCoM), German-American Chamber of Commerce of New York (GACC), site and Green Corner
<http://www.gaccomm.org/en/industries/renewables-projects/>
<http://www.transatlanticprogram.org/>
- Energy Information Administration, International Energy Outlook, 2011
<http://www.eia.doe.gov/oiaf/ieo/index.html> (read the Highlights section)
- Kammen, D. M. (2006). The Rise of Renewable Energy. *Scientific American*, 85-93.
- United States Department of Energy (US DOE). Energy Literacy: Essential Principles and Fundamental Concepts for Energy Education.

Suggested readings:

- Hoffert, M. I., K. Caldeira, et al. (2002). Advanced technology paths to global climate stability: Energy for a greenhouse planet. *Science*, 298(5595): 981-987.
- Hill et al. (2006). Environmental, economic, and energetic costs and benefits of biodiesel and ethanol biofuels. *PNAS*, July 25, 2006.
- MadiSun – Madison Solar Energy Program <
<http://www.cityofmadison.com/sustainability/city/madisun/>>
- MPowering Madison< <http://www.mpoweringmadison.com/>>

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

Wednesday, June 13

Renewable Energy Production

Site visits: ++Michael Mucha (MMSD), Nadeem Afgan (Viessmann), Niels Wolter (Solar Consultant), Don Wichert (Renew WI), Gary Radloff (WBI)++

Read:

- Department of Urban and Regional Planning UW-Madison. Energy Report and activities from SW WI.

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class

Thursday, June 14

The Politics of Environmental Sustainability

Guest Speaker: ++Dave Cieslewicz (Former Mayor of Madison)++

Read:

- Taylor, P. and F. Buttel (1992). How do we know we have global environmental problems? Science and the globalization of environmental discourse. *Geoforum*, 23(3), 405 - 416.
- City of Madison. (2011). The Madison Sustainability Plan: Fostering Environmental, Economic and Social Responsibilities. March 30, 2012.
<<http://www.cityofmadison.com/sustainability/sustainPlan.cfm>>

Tasks for students:

- readings comments are due at 11:59pm before class
- class learning comments are due at 9pm after class