

Syllabus for LS Interdis 400, Cross-listed with Environmental Studies 400 and 719 and CALS 375 (3 credits)

Course Title: “UW-NOLA Sustainable Restoration Workshop”

Session: June 1 – June 27, 2010 (BDD)

Vans will leave Madison Sunday, May 30, to arrive in New Orleans in time for an opening group meeting on the morning of June 1. Departure from New Orleans will be Saturday, June 26 to arrive in Madison on June 27.

Instructors:

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Course Description:

This 3-credit, field-based, workshop will introduce students to the multidisciplinary skills needed to work effectively with the complex and interconnected issues in a community-based project in New Orleans to restore the Bayou Bienvenue Wetland Triangle (BBWT), which is adjacent to the Lower 9th Ward. The four-week course will consist of one-week each of focused study of wetland science, social science, and land tenure followed by a capstone week of hands-on service learning doing reconstruction. Students will work with the Center for Sustainable Engagement and Development (CSED), Lower 9th Ward residents, non-profits (e.g., Sierra Club, Environmental Defense, Lake Pontchartrain Basin Foundation), government agencies (e.g., New Orleans Sewerage and Water Board, Army Corps of Engineers), neighborhood groups (e.g., Holy Cross Neighborhood Association, The Village), and universities (Tulane, U. of New Orleans, LSU, U. Colorado-Denver, Southeastern Louisiana).

General Requirements: Graduate students are expected to complete an individual research project and mentor and one or more undergraduates who are expected to write a report summarizing their contribution to the research. All students will work together to create a blog of their experience as a group project. In addition, all students are expected to:

1. Keep a journal.
2. Contribute labor to more than one of the 3 primary topics, i.e., science students should participate in a social science or planning activity, and vice versa.
3. Participate in weekly group meetings.
4. Provide a short summary of the weekly required readings.
5. Provide a weekly summary of field work activities.
6. Complete a 6-8 pg report of field work (data collection, analysis, conclusions and recommendations) for the 2010 report.
7. Present research findings in a mini-symposium open to UW-NOLA partners.

Weekly Assignments: These assignments complement field work, field trips and attendance at meetings with partnering organizations. Readings will be available on learn@UW.

Week 0 (For the car ride) Readings – Project Overview

- a) 2007 WRM-NOLA Report, Ch. 1-2
- b) 2008 WRM-NOLA Report, Ch. 1
- c) Grunwald and Glasser (2005)

Week 1 Readings - Social Science (Centered around the following three research questions dealing with wetland restoration and use)

1. What is the environmental knowledge and orientation of L9 residents?
2. How have the residents used the BBWT, particularly for food?
3. What is their knowledge and interest in restoration of the BBWT?

The purpose of 1 is to be able to compare environmental attitudes of the L9 to the general population. This will be done by administering the New Environmental Paradigm (NEP) questionnaire, a set of standard questions used to construct a scale measuring environmental attitudes. The NEP scale has been validated in a large number of populations and will give students experience working with one of many scales used in psychology to measure personality traits or attitudes. Items 2 and 3 will be addressed using a questionnaire designed for the project, the UW-NOLA survey, and semi-structured interviews. The former will give students experience administering and analyzing survey data that can be compared to previous years (longitudinal). The latter will provide students with an opportunity to practice interviewing, transcribing, and analyzing qualitative information.

- a) WRM-NOLA 2007, Ch. 5
- b) WRM-NOLA 2008, Ch. 6 and look over surveys and database
- c) Dunlap, R. E. & Van Liere, K. D. (1978)
- d) Dunlap, R. E., et al. (2000)
- e) Guagnano, G. A., et al. (1995)
- f) Stern, P. C. (2000)
- g) Stern, P. C., et al. (1999)
- h) Strauss, A. (1987)
- i) White Jr., L. (1967)

Week 2 (Service Learning Week) Readings - Environmental Justice and Community Participation

- a) WRM-NOLA 2008, Ch. 4, 9
- b) Pastor et al. (2006)
- c) Minkler (2005)
- d) Nance (2007)
- e) Wiltse (2007)
- f) Solnit (2007)

Week 3 Readings – Planning and Land Tenure

Planning

- a) Sandercock, L. (1998)
- b) Bayou Bienvenue Strategic plan

- c) Holy Cross Neighborhood Revitalization Plan

Legal Issues regarding restoration

- a) WRM-NOLA 2008, Ch. 8
- b) Davis (2008)

Government Role in Wetlands

- a) *Coast 2050* Ch 1-2, 8
- b) Houck (2006)
- c) WRM-NOLA 2008, Ch. 7

Week 4 Readings - Wetland Science (Includes field trips to intact wetlands and restorations in progress)

Setting

- a) 2007 WRM-NOLA Report, Ch. 3-4
- b) 2008 WRM-NOLA Report, Ch. 2-3
- c) *Coast 2050*, Ch. 3-5
- d) National Geographic, *New Orleans: A Perilous Future*

Ecology and Restoration

- a) Delta Restoration pp. 402-406 in Mitsch and Gosselink 2007.
- b) Day et al. (2007)
- c) Hesse et al. (1998)
- d) Hartman Engineering (2001)

Reading List – Required and Supplemental

Alexander, F.S., (2005) Land bank authorities: A guide for the creation and operation of local land banks. Local Initiatives Support Corporation.

Caffey, R. H., Savoie, K, Shirley, M. (2003) Stewardship incentives for Louisiana's Coastal Landowners. National Sea Grant Library.

Colten, C. E. (2002). Basin Street Blues: drainage and environmental equity in New Orleans, 1890-1930. *Journal of Historic Geography*, 28 (2), 237-257.

Colten, C. E. (2005). *Unnatural Metropolis*. Baton Rouge, LA: Louisiana State University Press.

Colten, C. E. (2006). Vulnerability and place: Flat land and uneven risk in New Orleans. *American Anthropologist*, 108(5), 731.

- Costanza, R., Perez-Maqueo, O. Martinez, M. L., Sutton, P., Anderson, S. J., Mulder, K. (2008). The Value of Coastal Wetlands for Hurricane Protection. *Ambio*, Royal Swedish Academy of Sciences, 37(4).
- Day, J. W., Boesch, D. F., Clairain, E. J, Kemp, G. P., Laska, S. B., Mitsch, W. J., Orth, K., Mashriqui, H., Reed, D. J., Shabman, L, Simenstad, C. A., Streever, B. J., Twilley, R. R., Watson, C. C., Wells, J. T. Whigham, D. F. (2007, March). Restoration of the Mississippi Delta: Lessons from Hurricanes Katrina and Rita. *Science*, 315 1679-1684.
- Day, J., Ford, M., Kemp, P., Lopez, J,. (2006) *A Guide for the Army Corps' Congressionally-directed closure of the Mississippi River Gulf Outlet*.
http://www.edf.org/documents/5665_Report%20-%20Mister%20Must%20Go.pdf
- Davis, M. (2008). A whole new ballgame: coastal restoration, storm protection, and the legal landscape after Katrina. *Louisiana Law Review*. Winter, 2008, #419.
- Dunlap, R. E. & Van Liere, K. D. (1978) The "new environmental paradigm". *The Journal of Environmental Education*, 9, 10-19.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. D. & Jones, R.E. (2000) Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56, (3), 425-442.
- Fischetti, M. (2001). Drowning New Orleans. *Scientific America*. October, 2001, 76-85.
- Godsil, R., Huang, A., and Solomon, G. (2009). Contaminants in the air and soil after the flood: Opportunities and limitations for community empowerment, in *Race, Place and Environmental Justice after Hurricane Katrina: Struggles to reclaim, rebuild, and revitalize New Orleans and the Gulf Coast*, ed. By R. D. Bullard and B. Wright, Westview Press, Boulder, CO, p. 115-138.
- Greater New Orleans Community Data Center (2002). Lower 9th Ward Snapshot. Retrieved on November, 27, 2007 from <http://www.gnocdc.org/orleans/8/22/snapshot.html>
- Greater New Orleans Community Data Center (2000). Holy Cross Neighborhood Snapshot. Retrieved on November, 27, 2007 from <http://www.gnocdc.org/orleans/8/22/snapshot.html>
- Guagnano, G. A., Stern, P. C. & Dietz, T. (1995) Influences on attitude-behavior relationships: A natural experiment with curbside recycling. *Environment and Behavior*, 27, 699-718.
- Grunwald, M., Glasser, S. B. (2005). The Slow Drowning of New Orleans. *Washington Post*. October 9, 2005.

Hartman Engineering (2001). *Bayou Bienvenue Pump Station and Diversion and Terracing Feasibility study, Orleans and St. Bernard Parishes*, No. PO-25, XPO-74A.

Hesse, I.D., Day, J. W. Jr., and Doyle, T. W. (1998). Long Term Growth Enhancement of Bald Cypress from Municipal Wastewater Application, *Environmental Management* Vol. 22, No. 1, pp. 119–127.

Houck, O. (2006). Can We Save New Orleans, *Tulane Environmental Law Journal*, Volume 19, Spring 2006, Issue 1.

Landphair, J. (2007). The forgotten People of New Orleans: community, vulnerability, and the Lower Ninth Ward. *The Journal of American History*. Through the Eye of Katrina, Special Issue. 94, December, 2007. Retrieved May 4, 2009 from <http://www.journalofamericanhistory.org/projects/katrina/Landphair.html>

Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority (1998). *Coast 2050*, LDNR, 161 pp. http://www.lca.gov/net_prod_download/public/lca_net_pub_products/doc/2050report.pdf

Minkler, M. (2005). Community-based research partnerships: challenges and opportunities. *Journal of Urban Health, Bulletin of the New York Academy of Medicine*. 82(2), 2.

Mitsch, W. J., and Gosselink, J.G. (2007). *Wetlands* (4th ed.), John Wiley, 582 pp.

Nance, E (2009) Making the case for community-based laboratories, in *Race, Place and Environmental Justice after Hurricane Katrina: Struggles to reclaim, rebuild, and revitalize New Orleans and the Gulf Coast*, ed. By R. D. Bullard and B. Wright, Westview Press, Boulder, CO, p. 153-168.

Pastor, M., Bullard, R., Boyce, J., Fothergill, A., Morello-Frosch, R., & Wright, B. (2006). *In the Wake of the storm: environment, disaster and race after Katrina*. New York: Russell Sage Foundation, 52 pp.

Reyes, J. (no year). The development of the land policy in Louisiana, 2pp. http://www.tobin.com/documents/dev_of_land_policy_in_louisiana.pdf

Sandercock, L. (1998). *Towards Cosmopolis: planning for multicultural cities*, London: John Wiley, 258 pp.

Solnit, R. (2007). The Lower Ninth Ward Battles Back. *The Nation*, September 10/17, 2007

Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56, (3), 407-424.

Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A. & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, **6**, (2), 81-97.

Strauss, A. (1987). *Qualitative Analysis for Social Scientists*. New York: Cambridge University Press.

Tidwell, M. (2003). *Bayou Farewell*. New York, NY: Pantheon Books.

Tulane/Xavier Center for Bioenvironmental Research and Louisiana Department of Natural Resources (2006). Sustainable Restoration: *Holy Cross district and the Lower 9th Ward*. <http://davidrmacaulay.typepad.com/SustainableRestorationPlan.pdf>

Water Resources Management Practicum-2007 (2008). *Wetland Restoration and Community-Based Development of Bayou Bienvenue, Lower Ninth Ward, New Orleans*. Nelson Institute for Environmental Studies, University of Wisconsin-Madison, 95 pp. <http://www.nelson.wisc.edu/wrm/workshops/2007/no/>

Water Resources Management Practicum-20008 (2009). *The Bayou Bienvenue Wetland Triangle: An Interdisciplinary Look at the Complex Issues affecting the Restoration of a Former Cypress Swamp*. Nelson Institute for Environmental Studies, University of Wisconsin-Madison, 182 pp.

<https://mywebspace.wisc.edu/groups/WRM-URPL-NOLA/2008%20DELIVERABLES/Final%20Document%20October%202009/WRM%20NOLA%202008%20Final%20Document%2010-25.pdf?uniq=-gtkmfy>

Wiltse, Ariane (June 26, 2007). Sustaining the nine, *Gambit Weekly*, 26-33.

White Jr., L. (1967). The historical roots of our ecological crisis. *Science*, **155**: 1203-1207.

UW-NOLA Media Coverage

Pouria Baladi (2009). *"The Cypress Graveyard: Restoring the Bayou Bienvenue Wetland Triangle,"* <http://www.youtube.com/watch?v=NemeQQMcQY> (Click on HD!)

or

www.youtube.com/uwnola (channel page)

FOX 8, WVUE, "Floating Island to Help Restore Bayou" (June 24, 2009) (Excellent 6 min., 11 sec video) http://www.fox8live.com/news/local/story/Floating-islands-to-help-restore-bayou/awy6rw_u9Uu1A2lQLVL-HQ.csp (no longer available)

ABC26, 'Floating Islands' To Help Restore Bayou http://www.abc26.com/news/local/wgno_news_floatingislands0623,0,3980807.story

Amy Wold, Baton Rouge Advocate, "Group seeks to revitalize N.O. swamp" (June 24, 2009)
<http://www.2theadvocate.com/news/48963341.html?index=14&c=y>
 (URL expires July 23, 2009)

Molly Reid, Times-Picayune, "'ISLAND' OASIS
 Scientists hope floating platforms will rejuvenate wetlands" (June 23, 2009)
<http://www.nola.com/news/t-p/neworleans/index.ssf?/base/news-11/1246028439182580.xml&coll=1>

Rob Zaleski, Cap Times, "UW team aims to aid New Orleans bayou" (Feb. 1, 2008)
<http://www.madison.com/tct/opinion/column/zaleski/270473>

Rebecca Solnit, The Nation, The Lower Ninth Battles Back (Sept. 10, 2007)
<http://www.thenation.com/doc/20070910/solnit>

Amy Wold, Baton Rouge Advocate, Restoring N.O. Forest Eyed (July 24, 2007)

Andrea Hsu, NPR All Things Considered (Aug. 5, 2008)
<http://www.npr.org/templates/story/story.php?storyId=93313791>

Maitri Venkat-Ramani, UW geology alum, New Orleans blog provides excellent public explanation of
 UW-NOLA:

Day 687 - July 17, 2007 <http://vatul.net/blog/index.php/1394/>

Day 887 - Jan. 31, 2008 <http://vatul.net/blog/index.php/1622/>

Day 899 - Feb. 12, 2008 <http://vatul.net/blog/index.php/1640/>