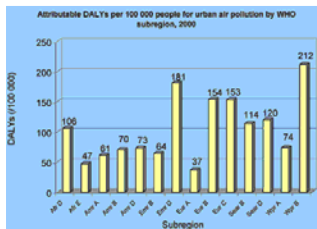


Program in Community and Regional Planning
Spring 2007
Monday-Wednesday 5:00-6:30 pm
SUT 2.102

CRP 383

Urban Environmental Analysis: The Politics of Place and Nature

Instructor: Bjørn Sletto
Office hours: Monday 1:00-2:30 pm
Office location: SUT 3.144



Course description:

We will focus on the politics of environmental planning, broadly defined, and examine how political-economic and social structures and processes influence environmental policy-making and planning practices. We will review different modes of learning about and representing the urban environment—urban political ecology, environmental monitoring, environmental modeling, local and experiential knowledge, activist science—and explore how such different strategies influence the work of environmental planners. We will also review different urban environmental concerns, including air quality, water resource management, and urban forestry; the historical development of the legal and policy framework for environmental planning in the United States; and various environmental analysis tools, including GIS and modeling software. We will conduct two class projects, one focusing on urban forestry in Austin, and one on fire management in the urban-wildland interface on the outskirts of Austin. These projects will involve field trips and field research. We will collaborate with Austin Energy, the Wildland Conservation Division of the Austin Water Utility, the Hyde Park Neighborhood Association, and the Texas Forest Service to complete these projects. The intent of the course is to prepare planning, sustainable design, geography, and public policy students to understand the social and ideological context of environmental planning. In addition, students will be introduced to some the tools used in environmental analysis; learn to interact with community members, planners and environmental scientists; and gain experience producing professional reports.

Course readings:

Environmental Land Use Planning and Management, by John Randolph (2003).

Additional readings (see syllabus for each week's readings) will be available for download on the course Blackboard site. You will also be required to review selected websites.

Course requirements:

1. You need to write one, short (10-page, double-spaced) paper, where you critically reflect on readings discussed in class.
2. You need to write a 5-page, double-spaced report on environmental issues in Austin, based on the March 3 fieldtrip and discussions on January 31 and March 5.
3. You need to make one, 20-minute power point presentation of your assigned chapter of the textbook. Your presentation should be uploaded to Blackboard.
4. You need to participate actively in class discussions, attend field trips¹, and engage with guest speakers.
5. You need to post short, one-page "discussion points" to Blackboard each week when readings are due, where you critique one or two of the readings and post a question for discussion. These discussion points are due either at 6pm on Sunday or 6pm on Tuesday. See syllabus for exempt weeks and any special instructions.
6. You need to complete your assigned portion of the two class projects: the community-based urban forestry plan and the fire hazards report.

Grading:

1. Paper: 10 percent, up to 100 points.
2. Report on urban environmental issues in Austin: 10 percent, up to 100 points.
3. Presentation: 10 percent, up to 100 points.
4. Participation: 10 percent, up to 100 points.
5. Discussion points: 10 percent, up to 100 points.
6. Class projects: 50 percent (25 percent each project, up to 250 points each).²

Policy on academic dishonesty:

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. For further information please visit the Student Judicial Services Web site: <http://deanofstudents.utexas.edu/sjs>.

¹ Each student must sign a "Release and Indemnification Agreement" provided by the Volunteer and Service Learning Center. This form is required of students who will attend class meetings off-campus or take fieldtrips.

² On the class projects, you will work as part of a project team. Your grade will in part be determined by your team, and in part by instructor. Instructor will evaluate the team's work as a whole and award the team a numerical grade. For instance, if you are three team members, your team could get a maximum of 750 points. You will decide, as a team, how to distribute these points among team members. For instance, you could distribute the points equally; i.e. if your group receives the maximum 750 points total, each of you would then receive 250 personal points. Alternatively, you could split the 750 points among yourselves based on what you feel is appropriate given each member's contribution. In either case, you are responsible for providing instructor with each group member's final grade by the end of the semester.

Key dates:

Wednesday, January 31: Guest speaker; interview and discussion.

Monday, February 19: Paper due.

Saturday, March 3: Fieldtrip (required).

March 12-17: Spring break.

Wednesday, March 21: Report on urban environmental issues in Austin due.

Wednesday, March 21: Fieldwork, Hyde Park.

Saturday, March 24: Fieldwork, Hyde Park (required).

Monday, March 26: Fieldwork, Hyde Park.

Monday, April 2: Presentation of plan and report for community-based urban forestry. Class meets in Hyde Park; location and time TBA,

Saturday, April 14: Fieldtrip (required). Fire management data collection, Austin.

Saturday, April 28: Fieldtrip (required). Fire management issues; Firewise communities.

Wednesday, May 2: Presentation of fire hazards report. Location TBA.

Individual presentation schedule:

Monday, January 29 (2):

Wednesday, January 31: Rebecca

Wednesday, February 7:

Monday, February 12: Dana

Wednesday, February 14 (2): Jon

Monday, February 19: Chad

Wednesday, February 21:

Wednesday, April 4: Irene

ENVIRONMENTAL PLANNING: HISTORY, ISSUES AND METHODS

Wednesday, January 17: Introduction to the course: course requirements, administrative issues, course overview.

Monday, January 22: History and overview of environmentalism in the United States.

Readings:

Stewart, Doug, Lisa Drew and Mark Wexler. 2000. "How Conservation Grew From a Whisper to a Roar." *National Wildlife* 38 (1): 22-26.

Johnson, Eric. 2006. "Changing Issue Representation among Major United States Environmental Movement Organizations." *Rural Sociology* 71(1): 132-154.

Optional:

Cafaro, Philip. 2002. "Rachel Carson's Environmental Ethics." *Worldviews* 6: 58-80.

Wednesday, January 24: History and overview of environmental planning in the United States; critiques and debates

Readings:

Guha, Ramachandra. 2000. "The Paradox of Global Environmentalism." *Current History* 99: 367-370.

Spence, Mark. 1996. "Dispossessing the Wilderness: Yosemite Indians and the National Park Ideal, 1864-1930." *The Pacific Historical Review* 65 (1): 27-59. (Skim).

Randolph, Chapter 1, "Managing Human-Environment Interactions," and Chapter 2, "Environmental Planning."

Monday, January 29: Environmental planning: science, methods and analysis.

Readings:

Review EDAW website, especially history and projects:

<http://www.edaw.com/whoWeAre/history/philosophy.aspx>

Randolph, Chapter 3, "Land Use Planning for Environmental Management," Chapter 11, "Environmental Geospatial Data and Geographic Information Systems," and Chapter 18, "Integration Methods for Environmental Land Use Analysis."

Look at "sample discussion point" on Blackboard.

Wednesday, January 31: Environmental planning: conflict and participation.

Guest speaker: Kevin M. Anderson, Coordinator Austin Water Utility, Center for Environmental Research

Readings:

LaChapelle, Paul, Stephen McCool and Michael Patterson. 2003. "Barriers to Effective Natural Resource Planning in a "Messy" World." *Society and Natural Resources* 16: 473-490.

Sarewitz, Daniel. 2004. "How science makes environmental controversies worse." *Environmental Science & Policy* 7: 385-403.

Lovbrand, Eva and Gunilla Oberg. 2005. "Comment on "How science makes environmental controversies worse" by Daniel Sarewitz," *Environmental Science & Policy* 8: 195-197.
Randolph, Chapter 4, "Collaborative Environmental Management and Public Participation."

Optional:

LaChapelle, Paul and Stephen McCool. 2005. "Exploring the Concept of "Ownership" in Natural Resource Planning." *Society and Natural Resources* 18: 279-285.

THEORETICAL FRAMEWORK: URBAN POLITICAL ECOLOGY

Monday, February 5: Introduction to urban political ecology.

Readings:

Bryant, Raymond. 1998. "Power, Knowledge and Political Ecology in the Third World: a Review." *Progress in Physical Geography* 22 (1): 79-94.

Adger, Neil et al. 2001. "Advancing a political ecology of global environmental discourses." *Development and Change* 32: 681-715.

Optional:

Keil, Roger. 2003. "Progress Report: Urban Political Ecology." *Urban Geography* 24 (8): 723-738.

Wednesday, February 7: Urban political ecology: debates and critiques.

Readings:

Walker, Peter. 2003. "Reconsidering 'regional' political ecologies: toward a political ecology of the rural American West." *Progress in Human Geography* 27 (1): 7-24.

Swyngedouw, Eric and Nikolas Heynen. 2003. "Urban Political Ecology, Justice and the Politics of Scale." *Antipode* 35 (5): 898-918.

Randolph, Chapter 7, "Local Government Smart Growth Management," and Chapter 8, "Regional, State, and Federal Management of Environmentally Sensitive Lands."

Optional:

McCarthy, James. 2002. "First World political ecology: lessons from the Wise Use Movement." *Environment and Planning A* 34 (7): 1281-1302

ANALYTICAL FRAMEWORK: GREEN INFRASTRUCTURE

Monday, February 12: Introduction to green infrastructure.

Readings:

Benedict, Mark and Edward McMahon. 2006. *Green Infrastructure: Linking Landscapes and Communities*. Washington: Island Press, pp. 1-22.

Randolph, Chapter 5, "Land Conservation for Working Landscapes, Open Space, and Ecological Protection," and Chapter 6, "Design with Nature for People: Sustainable, Livable, and Smart Land Use Development."

Optional:

Benedict, Mark and Edward T. McMahon. 2002. "Green Infrastructure: Smart Conservation for the 21st Century." *Renewable Resources Journal* (Autumn): 12-17.

McDonald, L., W. Allen, M. Benedict, and K. O'Connor. "Green Infrastructure Plan Evaluation Frameworks." *Journal of Conservation Planning* 1 (1):12-43.

Wednesday, February 14: Green infrastructure principles and practices.

Readings:

Benedict, Mark and Edward McMahon. 2006. *Green Infrastructure: Linking Landscapes and Communities*. Washington: Island Press, pp. 23-55.

Williamson, Karen. 2003. *Growing with Green Infrastructure*. Doylestown, PA: Heritage Conservancy. (Skim).

www.heritageconservancy.org

Randolph, Chapter 13, "Land Use, Stream Flow, and Runoff Pollution," Chapter 14, "Stormwater Management and Stream Restoration," and Chapter 15, "Land Use and Groundwater."

Optional:

Engel-Yan, Joshua. 2005. "Toward sustainable neighbourhoods: the need to consider infrastructure interactions." *Canadian Journal of Civil Engineering* 32: 45-57.

Sandstrom, Ulf. 2002. "Green Infrastructure Planning in Urban Sweden." *Planning Practice & Research* 17 (4): 373-385.

URBAN FORESTRY

Monday, February 19: Introduction to urban forestry: history, issues, debates.

Readings:

Heynen, Nik et al. 2003. "The Political Ecology of Uneven Urban Green Space: The Impact of Political Economy on Race and Ethnicity in Producing Environmental Inequality in Milwaukee." *Urban Affairs Review* 42 (1): 3-25.

Kuo, Frances. 2003. "The Role of Arboriculture in a Healthy Social Ecology." *Journal of Arboriculture* 29(3): 148-155.

Randolph, Chapter 16, "Landscape Ecology, Urban Forestry and Wetlands," and Chapter 10, "Ecosystem and Watershed Management."

Optional:

Westphal, Lynne. 2003. "Urban Greening and Social Benefits: A Study of Empowerment Outcomes." *Journal of Arboriculture* 29(3): 137-147.

Nowak, David. 2006. "Institutionalizing urban forestry as a "biotechnology" to improve environmental quality." *Urban Forestry & Urban Greening* 5: 93-100.

Wednesday, February 21: Urban forestry: science, benefits.
Community-based urban forestry.

Readings:

Lohr, Virginia et al. 2004. "How Urban Residents Rate Tree Benefits and Problems." *Journal of Arboriculture* 30(1): 28-35.

McLean, Daniel and Ryan Jensen. 2004. "Community Leaders and the Urban Forest: A Model of Knowledge and Understanding." *Society and Natural Resources* 17: 589-598.

Johnston, Mark and Lia D. Shimada. 2004. Urban Forestry in a Multicultural Society." *Journal of Arboriculture* 30(3): 185-192.

Randolph, Chapter 17, "Land Use, Wildlife Habitats, and Biodiversity," and Chapter 12, "Soils, Topography, and Land Use."

First paper due.

Monday, February 26: Guest speaker and short field trip: Larry Maginnis, UT forester.

Wednesday, February 28: Central issues and debates surrounding urban forestry, Austin. Initial project discussion.
Michael Embesi, City Forester, Austin; Judy Fowler, Public Involvement Specialist, Austin Energy and John Paul Moore, Hyde Park Neighborhood Association.

Readings:

"The First Step in the CITY OF AUSTIN'S Urban Forestry Management Plan: The Case for an Inventory" (Approved by the Urban Forestry Board, January 18, 2006).

Tree Trimming Task Force. "Recommendations of the Tree Task Force Presented to the Land Use and Transportation Subcommittee." May 8, 2006.

<http://www.envisioncentraltexas.org/Greenprint.pdf>

Austin Energy. "Call for proposals for Urban Forestry Analysis."

Envision Central Texas. "Greenprint for Growth: A Tool for Proactive Conservation Planning."

Discussion points due Tuesday, February 27, with questions for presenters.

Saturday, March 3: **Fieldtrip (required): Urban forestry issues: LBJ Wildflower Center; Center for Environmental Research, Hornsby Bend Biosolids Management Plant; Hornsby Bend Bird Observatory.**

Kevin M. Anderson, Coordinator, Austin Water Utility Center for Environmental Research.

Readings:

Review Texas Forest Service Website,

<http://txforestservation.tamu.edu/default.asp>, and the Center for Environmental Research website,

<http://www.ci.austin.tx.us/water/cer2.htm>

Monday, March 5:

Hyde Park fieldtrip and initial project discussion.
John Paul Moore, Hyde Park Neighborhood Association.

Readings:

Quick, Larry. March 2006. "Austin Neighborhood Planning: Past, Present and Future." Unpublished manuscript.

Review Hyde Park Neighborhood Association website,
<http://www.austinydepark.org/>

Wednesday, March 7:

Lecture by Dr. Andrew Jamison, Aalborg University:
"Environmental attitudes and environmental Planning: The case of Malmo, Sweden."
Location TBA.

Readings:

Mikael Hard and Andrew Jamison. 2005. *Hubris and Hybrids: A Cultural History of Technology and Science*, New York, NY: Routledge, Chapter 11.

Andrew Jamison. [Forthcoming]. "Greening the City: From Mumford to Malmo," in edited volume by Mikael Hard and Thomas Misa, MIT Press.

Discussion points due Tuesday, March 6, with questions for presenter.

Monday, March 12:

No Class; Spring Break!

Wednesday, March 14:

No Class; Spring Break!

Monday, March 19:

Urban forestry: discussion of community-based methods.
Selection of working groups; discussion of goals, methods, final product, presentation.

Guest speaker: John Paul Moore, Hyde Park Neighborhood Association, and Larry Maginnis, UT forester.

Readings:

Zanelli English, Kim and Laura Feaster. 2003. "Protecting the community forest," pp. 179-186, in *Community Geography: GIS in Action*. Redlands: ESRI Press.

McDonough, Maureen et al. 2003. *Dialogue on Diversity: Broadening the voices in urban and community forestry*. USDA Forest Service, Report NA-IN-04-03.

Wednesday, March 21: Fieldwork with John Paul Moore, Hyde Park Neighborhood Association.

Report on urban environmental issues in Austin due.

Review:

Bureau of Forestry. ND. *A Technical Guide to Developing Urban Forestry Strategic Plans and Urban Forestry Management Plans*. Madison: Wisconsin Department of Natural Resources. (Skim).

Nowak, David et al. *Minneapolis' Urban Forest*. Northeastern Research Station Resource Bulletin NE-166. Madison: USDA Forest Service. (Skim).

Urban Forestry South. 2005. *Urban Forestry: A Manual for the State Forestry Agencies in the Southern Region*. Unit: Urban Forestry and Public Policy. (Skim).

<http://www.urbanforestrysouth.org/>

Saturday, March 24: Fieldwork, Hyde Park. Required; time TBA.

Monday, March 26: Fieldwork.

Review:

Nowak, David et al. 2005. *Houston's Regional Forest: Structure, Functions, Values*. College Station: Texas Forest Service.

McPherson, Gregory et al. 2005. City of Minneapolis, Minnesota, Municipal Tree Resource Analysis. Davis, CA: Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station.

Municipal Services and Research Center, Washington DC:

<http://www.mrsc.org/Subjects/Environment/urbanforest/urbtrees.aspx>

City of Plano, Department of Parks and Recreation. Urban Forestry Plan:

<http://www.plano.gov/Departments/parksandrecreation/Urban+Forestry/>

USDA Forest Service, Northeastern Research Station. "Trees Pay us Back: Tools for Communicating the Benefits of Trees:"

<http://www.na.fs.fed.us/urban/treespayusback/vol2/index.html>

References:

UFORE Manual.

USDA Forest Service UFORE information pages:

<http://www.fs.fed.us/ne/syracuse/Tools/UFORE.htm>

iTree homepage (STRATUM and UFORE):

<http://www.itreetools.org/applications.html>

Wednesday, March 28: Project work: write-up, GIS, presentation planning.

No discussion points due this week.

Monday, April 2: Presentation of plan for community-based urban forest inventory, Hyde Park. Class meets in Hyde Park; time and place TBA.

FIRE MANAGEMENT AT THE URBAN-WILDLAND INTERFACE

Wednesday, April 4: Introduction to wildfire in the urban-wildland interface.

Readings:

Pyne, Stephen. 2004. "Pyromancy: Reading Stories in the Flames." *Conservation Biology* 18 (4): 874-877.

Dellasala, Dominick. 2004. "Beyond Smoke and Mirrors: a Synthesis of Fire Policy and Science." *Conservation Biology* 18 (4): 976-986.

Levy, Sharon. 2005. "Rekindling native fires." *BioScience* 55 (4): 303-308.

Randolph, Chapter 9, "Natural Hazard Mitigation."

No discussion points due this week.

Monday, April 9: Social and political aspects of urban-wildland fire management issues; discussion of class project; GPS practice.

Readings:

Dombeck, Michael et al. 2004. "Wildfire Policy and Public Lands: Integrating Scientific Understanding with Social Concerns across Landscapes." *Conservation Biology* 18 (4): 883-889.

Davis, Charles. 2006. "Western Wildfires: A Policy Change Perspective." *Review of Policy Research* 23 (1): 115-127.

Steede-Terry, Karen. Chapter 11 in *Integrating GIS and the Global Positioning System*. Redlands: ESRI Press.

All discussion points for this week are due Sunday, April 8, by 6pm.

Wednesday, April 11: Introduction to urban-wildland fire management issues in Austin; wildfire hazard risk assessment; class project.

Guest speaker: Karen Gilgore, GIS Specialist, Texas Forest Service.

Readings:

Kilgore, Karen et al. ND. "Wildfire Hazard Risk Assessment: Access Based Subdivision Survey." College Station: Texas Forest Service.

Review map, "Urban-Wildland Interface Risk Model for the West Austin/Travis County Study Area." Texas Forest Service 2003.

Saturday, April 14: **Fieldtrip (required). Wildfire hazards risk assessment, Austin.**

Karen Gilgore, Texas Forest Service.

Monday, April 16: Guest speaker, Texas Forest Service. Review and discuss requirements for final project report.

Wednesday, April 18: Guest speaker, Texas Forest Service. Review and discuss requirements for final project report.

Monday, April 23: Glen Gillman, fire management specialist, Austin Water Utility, Wildland Conservation Division.

Readings:

Discussion points could either address field trip and project preparations, or readings for Monday, April 23, and are due Sunday, April 23, by 6pm.

Wednesday, April 25: Work on fire hazards analysis report.

Saturday, April 28: **Fieldtrip (required). Review of wildfire hazard risk assessment; Firewise communities.**

Jan Fulkerson, Texas Forest Service.

Monday, April 30: Practice fire hazards analysis presentation.
Course review: environmental planning challenges in the 21st century.

Readings:

Samson, Fred and Fritz Knopf. 2001. "Archaic Agencies, Muddled Missions, and Conservation in the 21st Century." *Bioscience* 51 (10): 869-874.

Bryan, Todd. 2004. "Tragedy Averted: The Promise of Collaboration." *Society and Natural Resources* 17: 881-896.

Wednesday, May 2: Presentation of fire hazards GIS and report. Location TBA.

Fire hazards report and presentation due.