ESPM 117
Urban Agriculture
Fall 2008

Lecturer:
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Graduate Student Instructors:
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Lecture:
Tuesdays, 4-7 PM, 110 Wheeler Hall

Labs:
Fridays @ the Student Organic Garden (corner of Virginia & Walnut)
Sec. 1: 8-10 Sec. 2: 10-12 Sec. 3: 1-3

Website: http://urbanag.pbwiki.com (click on ESPM 117)

Course Overview:

ESPM 117 (formerly "Urban Garden Ecosystems") revolves around a fundamental question: How do we mend the "metabolic rift" between farm and fork, ie, the socio-ecological rupture between city dwellers and the food they consume? Over the course of the semester, we will study urban food production (with a particular emphasis on organic gardening) through a twin lens of political ecology and agroecology. This interdisciplinary approach will allow us to better understand the biophysical and socioeconomic opportunities for and obstacles limiting urban and peri-urban agriculture both in the Bay Area and internationally. The course is interactive and hands-on, integrating theory & practice as we cover the fundamental principles, skills, and concepts associated with ecological horticulture for use in urban/peri-urban settings, and explore urban agriculture's role in aiding the reintegration of food, soil, and city.

The classroom component consists of lectures, guest speakers by Bay Area professionals and scholars, field trips to urban farms and gardens, discussion of readings, and student presentations. Topics covered include:

- "metabolic rift," local food systems, and the political ecology of urban agriculture
- urban agroecosystems in both US and developing world contexts
- urban agriculture & community development (includes field trips)
- fundamentals of horticulture, soil science, insect & soil ecology

- organic production techniques
- urban garden design

In weekly lab sessions, **we learn how to grow food**. We will cover:

- horticultural techniques (plant propagation, direct-seeding, transplanting)
- soil quality & fertility management
- irrigation & water conservation
- pest/disease/weed management
- compost production
- beneficial insect habitat

Grading:

Quizzes (25%)
- Short answer questions/activities on each major topic

Midterm (25%)
- One take-home exam

Final Project (25%)
- Groups of 5 or 6 focusing on one element of UA in the local food system (15 page paper and presentation)

Participation (25%)
- Lab attendance
- Classroom participation
- Garden responsibilities
- Community garden hours (10 hours working with a community UA initiative)

Texts:

- There is a reader for ESPM 117 Lecture available at "Instant Copying & Laser Printing", 2138 University Ave (at Oxford across from Ace Hardware). All lecture readings are also available as downloads/links on the course website (www.urbanag.pbwiki.com).
- There is one text for ESPM 117 Lab, *Golden Gate Gardening* by Pam Pierce, available at the ASUC textbook store.

Course Schedule & Assignments:

Week 1 (9/2)**: Course Overview/Introduction to UA & the "Metabolic Rift"**

- John Bellamy Foster & Fred Magdoff. 2000. Liebig, Marx, and the Depletion of Soil Fertility: Relevance for Today's Agriculture. In F.Magdoff, J.B.Foster and F.H.Buttel (eds) *Hungry for Profit: The Agribusiness Threat to Farmers, Food and the Environment*. New York: Monthly Review Press, pp. 43-60.
- John Bellamy Foster. 1999. Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology. *American Journal of Sociology* 105(2):366-405. *Read pages 378-383 "Marx and the Metabolic Rift"*

Week 2 (9/9): **Bridging the Metabolic Rift: UA & Food Justice Here at Home**

- Jack Kloppenberg Jr., John Henrickson & G.W. Stevenson. 1996. Coming into the Foodshed. *Agriculture & Human Values* 13(3):33-42.
- Mark Winnie. 2000. Community Food Security: Promoting Food Security and Building Healthy Food Systems. Community Food Security Coalition. http://www.foodsecurity.org/pubs.html

Guest Speaker: Navina Khanna (HOPE Collaborative)
Videos: South Central Farms, Food Justice

SATURDAY FIELD TRIP (9/13): City Slicker Farms, West Oakland

Week 3 (9/16): **Urbanization, the Global Food Crisis & UA in the Developing World**

- Mike Davis. 2004. Planet of Slums: Urban Involution and the Informal Proletariat. *New Left Review* 26(2):5-34. (*read through p. 27*)
- R. van Veenhuizen. 2006. Ch. 1: Introduction. *Cities Farming for the Future: Urban Agriculture for Green and Productive Cities*. RUAF. http://www.ruaf.org/node/966

Video: Urban Agriculture, RUAF http://www.ruaf.org/node/1127
Guest Speakers: Alethea Harper (SAGE)

Week 4 (9/23): **Metabolism Underground: Physical, Chemical & Biological Properties of Soil**

- Thies, Janice E. & Julie M. Grossman. 2006. The Soil Habitat and Soil Ecology. In Uphoff et al (eds) *Biological Approaches to Sustainable Soil Systems*. Boca Raton: CRC Press, pp. 59-78.

Week 5 (9/30): **Sustainable Soil Fertility & Irrigation Management**

- Seiter, Stefan & William R. Horwath. 2004. Strategies for Managing Soil Organic Matter to Supply Plant Nutrients *Soil Organic Matter in Sustainable Agriculture*. Boca Raton: CRC Press, pp. 269-293.

Week 6 (10/7): **Agroecological Principles for Plant Health & Pest Management**

- C.I. Nicholls & M.A. Altieri. 2007. Agroecology: Contributions towards a renewed ecological foundation for pest management. In M. Kogan & P. Jepson (eds) *Perspectives in Ecological Theory and Integrated Pest Management.* Cambridge University Press, pp. 431-468.

Week 7 (10/14): **Garden Design & Crop Planning**

- Class handouts (TBD)

**MIDTERM DISTRIBUTED

Week 8 (10/21): **Urban Livestock & Urban Pollinators**

- Class handouts (TBD)

Guest Speaker: Novella Carpenter, Ghosttown Farm

**MIDTERM DUE

SATURDAY FIELD TRIP (10/25): Ghosttown Farm, 28th & MLK, Oakland

Week 9 (10/28): **UA & Education**

- Emily Ozer. 2005. The Effects of School Gardens on Students and Schools: Conceptualization and Considerations for Maximizing Healthy Development. *Health Education & Behavior*.

FIELD TRIP: Berkeley Youth Alternatives & Edible School Yard

Week 10 (11/4): **UA & Public Health**

- Jane Dixon et al. 2007. The Health Equity Dimensions of Urban Food Systems. The Health Equity Dimensions of Urban Food Systems. *Journal of Urban Health* 84(1):188-129.
- RUAF Fact Sheet: Urban Agriculture, Food Security and Nutrition.

Guest Speakers (tentative): Jason Harvey (Oakland Food Connection) & Emily Ozer (Asst. Prof, UCB School of Public Health)

Week 11 (11/11): **UA Planning & Policy**

- Pothukuchi, Kameshwari & Jerome L. Kaufman. 1999. Placing the food system on the urban agenda: The role of municipal institutions in food systems planning. *Agriculture & Human Values* 16:213-224.
- Serena Unger & Heather Wooten. 2006. Executive Summary. *A Food Systems Assessment for Oakland, CA: Towards a Sustainable Food Plan*. Oakland Mayor's Office of Sustainability/UCB. http://oaklandfoodsystem.pbwiki.com/f/OFSA_TOC_ExecSumm.pdf

Guest Panel: David Ralston (City of Oakland Community Economic Development Agency) & Hank Herrera (HOPE)

Week 12 (11/18)

Presentations

Week 13 (11/25)

NO CLASS (Thanksgiving)

Week 14 (12/2)

Presentations
Wrap-Up, Concluding Remarks, Course Evaluation

Labs:

Fridays @ the Student Organic Garden (corner of Virginia & Walnut)
Sec. 1: 8-10 (CCN 29352)
Sec. 2: 10-12 (CCN 29355)
Sec. 3: 1-3 (CCN 29358)

LAB SCHEDULE

Week 1 (8/29):	Intro to the Student Organic Garden/Oxford Tract/planting
Week 1 (9/5):	Bed Prep
Week 2 (9/12):	Greenhouse/Starts
Week 3 (9/19):	Transplanting/Irrigation
Week 4 (9/26):	Weed & Pest Management
Week 5 (10/3):	Compost & Vermicompost Production
Week 6 (10/10):	Cover Cropping
Week 7 10/17):	Cover Cropping
Week 8 (10/24):	Garden Practicum
Week 9 (10/31):	Garden Practicum
Week 10 (11/7):	Garden Practicum
Week 11 (11/14):	Garden Practicum
Week 12 (11/21):	Garden Practicum
Week 13 (11/28):	NO LAB (Thanksgiving)
Week 14 (12/5):	Final Harvest/Harvest Party