## GEO4930-4/5934-5 *Urban Ecology* Spring 2013, HCB 205 Monday/Wednesday, 10:10-11:25

Dr. Joseph Pierce Office: Bellamy, Room 305 Office Hours: Mondays, 12:30-2:30pm / by appointment Email: jpierce3@fsu.edu

# **Course Description**

This course explores the ecology of cities. Using examples primarily from the U.S. (Chicago, Los Angeles, Portland, Austin, Tallahassee, New York) and abroad, students will explore the ways in which humans create and respond to urban ecosystems. We will examine the role of ecosystem services in urban well-being; the differences between animal, plant, and built environments; and the interrelationships between them. Through case studies and theoretical discussion, we will explore two core questions:

- 1) What is "natural" or "unnatural" about the urban environment? and
- 2) How do different views of urban ecological systems shape decision-making and development?

Students will be expected to work both individually and in groups to develop responses that attempt to answer the two questions above, using the approaches that we will introduce over the course of the semester.

# **Course Objectives**

*Objective 1:* Students will be able to **discuss key theories of urban ecological systems**. *Evaluation:* Students will be evaluated regarding this objective through *class discussion* and *reading response journals*.

**Objective 2:** Students will be able to **recognize and evaluate different ecosystem patterns and their social implications,** including differences in pattern between sites, and regions.

*Evaluation*: Students will be evaluated regarding this objective through *class discussion* and *reading response journals*.

*Objective 3:* Students will be able to **apply their understanding of urban ecology** by choosing appropriate theories from the course materials to predict the impact of specific (hypothetical) changes.

*Evaluation*: Students will be evaluated regarding this objective through the *mid-semester report, pre-final presentation,* and the *final paper*.

# **Prerequisites and Fulfillment of Requirements**

There are no explicit prerequisites for this course. It is an upper-level course, however; the reading and writing requirements expect a high level of performance. You should expect assignments to be difficult and require your full, intensive attention. You have been warned.

# **Required Readings**

There is no required textbook for this course. Readings will be provided in-class or (primarily) via Blackboard. Some of the readings are "real world" documents that are not designed to clearly state their point of view on our in-class themes. As a result, it is your responsibility to link the readings to the specific themes of lectures and discussions from week to week. Certain readings are listed in **bold:** these are mandatory for graduate students and optional for undergraduates. Any readings that are in any other form of text are required of all students. If you have any questions about whether or not you are expected to complete a reading, please ask! You will be held accountable for it.

## Assignments and Grading

There are three types of assignments in this course (defined below). These, along with your participation in class discussion, form the portfolio which will be assessed to produce your grade. **All written assignments should use the following format**: 12 point Times New Roman, double spaced, 1 inch margins, with a single-spaced heading that includes the assignment name, date turned in, and your name on the first line, with the title of the piece on the second.

<u>Reading Response Journal</u>: The reading reaction journal is a cumulative journal of reactions to **all assigned readings**. The journal is *not* for summaries; I have read these pieces and do not need you to explicate them. Each week's response should be 1-2 pages and should (a) *identify the major theme* in the readings, and (b) *discuss your reaction* to the readings as a set. Journal entries are due on Blackboard *before* Monday's class *each week*. I will grade them as sets approximately four times over the course of the semester unannounced at my discretion. To reiterate: **you are required to submit the coming week's journal reaction every Monday before we discuss them in class. 25% of grade** 

<u>One Short Mid-semester Report</u>: The mid-semester report is a 5-page (plus bibliography) report on a *recent shift* (past 10-15 years) in the ecology of a contemporary American city of your choice. (NOTE: The reports are individual, but you must find another student who will cover the same change. See presentations, below. All reports will include a case introduction and an explanation of the impact of that urban ecological shift. A report may also include maps, models, charts, etc. as needed (these do not replace text length, but if they are clarifying may indeed improve your grade). More detailed instructions will be given as the due dates approach (see course outline below). **20% of grade** 

<u>One Late-Semester Presentation</u>: Pairs of students will give a late-semester report that predicts what would happen in the city identified in your midterm under a set of conditions *to be announced at a later date*. Presentations will run approximately 5-10 minutes and should refer to theory as developed in the class discussion. More detailed instructions will be given as the due dates approach (see course outline below). **10% of grade** 

<u>One Final Paper</u>: Each student will write an 8-10 page paper justifying the predictions articulated in the presentation, above. Students should identify key actors, offer a timeline, and speculate on how the change would play out. More detailed instructions will be given as the due dates approach (see course outline below). **GRADUATE STUDENTS: See instructor for alternate paper requirements.** 22.5% of grade

<u>Ongoing Class Participation</u>: Student participation in class discussions and in-class project processes is critical to the function and success of this course. We will often move back and forth between small group discussion and full-class discussion. Being in class, on-time, prepared and in an appropriate head space to actively engage in learning is an important element of your evaluation. In addition to discussion of the readings, there will be in-class opportunities to present (usually in small groups) your written projects to one another.

# 22.5% of grade

<u>Quizzes</u>: I reserve the right to insert reading verification quizzes into the course at any time of my choosing. Quizzes, if proctored, will be brief short-answer or multiple-choice instruments at the beginning of class, in class, and will each account for 2.5% of your total grade. Other assignments will be proportionally reduced in grade value.

A word about grading: As is true for many of my colleagues, I try to guide students regarding what qualifies as good without setting an outer bound for what is excellent. We will discuss in further detail what I am seeking in each of these assignments as they approach, but what I value most is your creative engagement with reading materials and the various assignments as a vehicle for learning. I urge you to make assignments your own by *discussing with me* outside of class whether your proposed approach will satisfy the requirements of the assignment.

Numeric grades on assignments will translate to letter grades on the following scale:

92 to $100.0\% = A$	77 to $79 = C +$
90 to $92 = A$ -	73 to $76 = C$
87  to  89 = B +	70 to $72 = C$ -
83  to  86 = B	60 to 69 = D
80  to  82 = B-	0  to  59 = F

# **Class Policies**

**Classroom Ground Rules:** Every student deserves an academic environment in which they are free to intellectually explore and participate in discussion safely and comfortably. All students are expected to abide by basic ground rules and avoid disparaging or inflammatory comments to their classmates.

**Classroom Technology:** Mobile phones, texting, email, messaging, facebook, etc.—any personal communication or use of technology for non-classroom purposes—is not permitted. I reserve the right to prohibit the use of laptops, tablets, etc. in the classroom if I have concerns regarding focus and attention to class activities. Classroom technology is a privilege! Don't ruin it for your classmates.

University Attendance Policy: "Excused" absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. The University requires that these absences be accommodated in a way that does not *arbitrarily* penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness. That noted, however, keep in mind that the right to evaluate and accept or decline documentation of illness or crisis ultimately remains the decision of the instructor.

Attendance Policy For This Class: Whether excused or unexcused, *all* students who miss a class session will be required to interview 2 of their colleagues and submit a 1000 word (plus bibliography!) paper explaining what happened in class, what was important about it, and how it related to the assigned readings. This paper is due *no later than* 2 weeks after the missed session, and later papers will not be accepted. Four or more **unexcused absences will result in a failing grade for the semester.** I expect you in the classroom, and this assignment is intentionally designed to make missing class more onerous than attending it. These papers will be graded rigorously, with the expectation that you demonstrate a complete and nuanced understanding of the important themes we discussed in class. I will not provide outside-of-class tutoring to prepare students for this assignment. Attendance will be recorded at each class session, and it is a violation of Academic Honor Policy (see below) to misrepresent your presence.

**Assignment Submission:** Weekly journals should be submitted online. All other assignments should be submitted as a paper copy, in class, before I begin addressing the class on the due date.

Late Work: Timely submission of assignments is key to the smooth functioning of the class. Late work must be excused by the instructor, should reflect a serious, documented excuse, and will be marked down 10% per day. No assignments will be accepted more than 1 week late. Grade disputes must be addressed to the instructor *within two weeks* of the grade being posted online; you are responsible for keeping up with your grades as they are posted to the course website.

Academic Honor Policy: The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "... be honest and truthful and ... [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <u>http://dof.fsu.edu/honorpolicy.htm.</u>)

**Free Tutoring from FSU**: For tutoring and writing help in any course at Florida State University, visit the Academic Center for Excellence (ACE) Tutoring Services' comprehensive list of tutoring options - see<u>http://ace.fsu.edu/tutoring</u> or contact <u>tutor@fsu.edu</u> for more information. High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

Americans With Disabilities Act: Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class. This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center 874 Traditions Way 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD) sdrc@admin.fsu.edu http://www.disabilitycenter.fsu.edu/

**Syllabus Change Policy**: Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

Syllabus continues with course schedule on the following page.

# **Course Schedule for Urban Ecology**

Each week we meet twice except as interrupted by holidays. You are expected to have read all of the assigned material before the first class session; any written assignments are due *before* the beginning of the first session unless otherwise noted. In other words, if you turn in a reaction paper for week three, you must hand it in before I begin addressing the class on the Monday of that week.

**NOTE**: I occasionally add one or two brief current events-based readings a week ahead. *Please check Blackboard for additional readings*. These *will* be included in class discussion and are eligible for inclusion in your Reaction Papers.

### SEGMENT ONE: Elemental Environments

### Week One: Introduction (Jan 7, 9)

*Key Questions:* What are the differences between the meanings of nature, environment, ecology, green, urban, human, built, and unbuilt?

Readings [For Second day of Class]:

• Cronon, W. "The Trouble With Wilderness."

### Week Two: Water (Jan 14, 16)

Key Questions: How is water in the city industrialized?

Readings:

- Gandy, M. Chap 2, "Water Space and Power," in *Concrete and Clay: Reworking Nature in New York City.* pp 19-75.
- Grann, D. "City of water." New Yorker Sept 1 2003, pp 88-103.

#### Week Three: Earth (Jan 23 [Monday is a holiday])

Key Questions: Where was the land before we got here?

Readings:

• Cronon, W. Prologue, Chap 1, Nature's Metropolis.

#### Week Four: Air (Jan 28, 30)

*Key Questions:* How do air quality and mobility challenge models of urban governance?

Readings:

• Loh and Sugerman-Brozan. 2002. Environmental justice organizing for environmental health: case study on asthma and diesel exhaust in Roxbury, Massachusetts. The ANNALS of the American Acadamy of Political and Social Science 584, 110-124.

• Buzzelli. 2008. A political ecology of scale in urban air pollution monitoring. *Transactions of the Institute of British Geographers* 33 (4), 502-517.

# Week Five: Fire (Feb 4, 6)

*Key Questions:* How has the built environment changed fire in, for, and near cities?

Readings:

- Davis, M. 1999. "The Case for Letting Malibu Burn," in Ecology of Fear.
- Stewart, S., et al. 2007. Defining the Wildland–Urban Interface *Journal of Forestry*

## SEGMENT TWO: How Cities Grow, Naturally or Not

## Week Seven: Small Buildings / Tall Buildings (Feb 11, 13)

*Key Questions:* When we build what systems are in play?

Readings:

- Interview with Sudhir Jambhekar. http://www.theurbanvision.com/blogs/?p=574
- Contemporary news readings TBD

## Week Six: Flora / Fauna (Feb 18, 20)

Key Questions: Is all life in the city "invasive?"

Readings:

- Cronon, W. Chap 5 ("Annihilating Space: Meat") in Nature's Metropolis.
- Robbins and Sharp, "Turfgrass subjects: the political economy of urban monoculture."
- Kitchen. Are Trees Always 'Good'? Urban Political Ecology and Environmental Justice in the Valleys of South Wales. *International Journal of Urban and Regional Research* (2012)

# Week Eight: Highways / Cars / Pedestrians (Feb 25, 27)

*Key Questions:* How did highways change the ecosystem of the city? *Readings:* 

- Gandy, M. Chapter 3, in Concrete and Clay.
- Caro, R., Chaps 13, 14, 24, 25, *The Power Broker*.

#### Week Nine: Residents / Economies (Mar 4, 6)

*Key Questions:* How do people in cities understand their relationship with ecosystems?

Readings:

• Gifford. Environmental Psychology and Sustainable Development: Expansion, Maturation, and Challenges. *Journal of Social Issues* (2007)

Due: Midterm short papers (Mar 6, before class begins).

## SEGMENT THREE: Green Politics and Green Development?

# Week Ten: Land & Rights (Mar 18, 20)

Key Questions: Who can use what land where, and why?

Readings:

• Blom, B. Chaps 1-3. *How Close to Justice?: A Case Study of the Relocation of Residents from Fairfield and Wagner's Point.* 

### Week Eleven: Environmental/Ecological Politics (Mar 25, 27)

Key Questions: How do we argue over what the right environment is?

Readings:

- Keil and Boudreau, "Metropolitics and metabolics: rolling out environmentalism in Toronto"
- Graham, "Urban metabolism as target: contemporary war as forced demodernization."

## Week Twelve: Ecological Justice? (April 1 [April 3 TBD])

*Key Questions:* How do we evaluate urban "winning" and "losing" in ecosystem terms?

Readings:

- Allen. Realizing justice in local food systems. *Cambridge Journal of Regions, Economy and Society* (2010)
- Rees and Wackernagel. Urban ecological footprints: why cities cannot be sustainable—and why they are a key to sustainability. Urban Ecology (2008).

### **SEGMENT FOUR:** What comes next?

### Week Thirteen: New Development(s) (April 8, 10)

Key Questions: What should we build?

Readings:

- Register, R. pp 1-105. *EcoCities: Rebuilding Cities in Balance with Nature.*
- Loh and Kilburn. The costs and benefits of high-density urban living.

## Week Fourteen: Presentations (April 15, 17)

*Key Questions:* What is a good interaction between human-urban and nonhuman-urban?

Due: Presentations, clearly.

### Week Fifteen: Livable Cities and the New Nature (April 22, 24)

Key Questions: What does it mean to live in a city with no nature or all nature?

Readings:

• Evans, P. Ed. Chaps 7 & 8 in *Livable Cities? Urban Struggles for Livelihood and Sustainability.* 

Due: Final papers (April 24 before class begins).