Valerie Friedmann  
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Office hours: By appointment  
E-mail: valeriefriedmann@auburn.edu

Time and Location  
Tue/Thu 1:00-2:15p  
Dudley room 203

Course Description  
Urban ecology, industrial ecology, regional ecology, ecological design, rural ecology, agro-ecology, landscape ecology, ecological urbanism, restoration ecology, ruderal ecology, systems ecology…The use of the term ‘ecology’ saturates the lexicon of our discipline, especially with the rising popularity of sustainability.

However, ‘ecology’ tends to mean different things to different people. The first task of this course is to establish a broad understanding of ecological theories and principles. This includes an examination of evolving scientific views of ecology—from predictable linear ecological states to complex unpredictable adaptive systems and networks.

Secondly, the course examines the interrelationships between the abiotic, biotic, and cultural domains in which we live—the dynamic morphology of the landscape that accommodates the flow of nutrients, energy, plants, animals, and people.

Finally, the course provides a framework for analyzing places and precedent projects. We will examine places that highlight the emergent complexity of the urban condition and projects that utilize ecology as an applied science and conceptual model for decision making and design.

Course Format  
This is a seminar course with weekly lectures and student-led/instructor-facilitated discussions. The course is organized around three themes:

1. Ecological Theories and Principles
2. Interrelationships
3. Places and Precedents
Members of the course will formulate critical reviews of texts, precedent studies, and their own ongoing academic works-in-progress. Students will present their analyses orally, graphically, and in text.

We will read the book *Rambunctious Garden: Saving Nature in a Post-Wild World* by Emma Marris as an overall theoretical base. Selected readings and case studies authored by scientists, land managers, and designers will provide a technical framework for study. Fieldwork in the Auburn area will provide opportunities to study urban ecology in action.

**Learning Objectives**

Upon completion of this course, level 5000 and 6000 students will be able to:

A. discuss and compare perspectives on ecological theories and principles and approaches to ecological design
B. research, analyze, and document dynamic resource relationships in an urban area
C. reflect on and analyze selected aspects of the course content (ecological theories and principles, interrelationships, places and precedent studies) as relevant to the student’s own on-going studio or other academic project

Additionally, level 6000 students will be able to:

D. describe a number of possible ecological scenarios that may result from a manipulation within the urban landscape

**Evaluation**

Grade evaluations will be based on consistent, high quality work over the entire semester. Students will be evaluated on their timely and thorough completion of assigned work, the depth of their exploration and consideration, as well as their level of professional competence in the presentation of work. Assigned grades will reflect either an A (90% and up), B (80% to 89%), C (70% to 79%), D (63% to 69%), and F (62% and below.) Students will receive a mid-semester and end of semester grade evaluation with the following weight for each course activity:

- 20% | informed contributions to discussions [learning objectives A]
- 20% | weekly quizzes [learning objectives A]
- 30% | P1: urban metabolisms poster [learning objectives B, D]
- 30% | P2: illustrated evaluation paper [learning objectives C, D]

**Weekly Discussions and Quizzes**

This is a reading and discussion focused course. Students are responsible for reading all materials, reviewing lecture slides, and preparing informed questions and insights for discussion prior to class each week. Discussion contributions will be monitored. Eleven (11) short answer quizzes will be assigned in class on discussion days. Quiz questions will draw from the weekly lecture or readings. One quiz grade may be dropped.

**Fieldwork**

At least one local field trip will be planned during the scheduled class time. Participation is required. Fieldwork will also be assigned as homework. See schedule below.

**Required Text**


Other texts will be shared as pdfs.

**Attendance**

Attendance will be monitored. Arriving late or leaving early by more than five (5) minutes without prior approval from the instructor is considered an absence. Appropriate documentation for all excused absences is required within one week of the absence. More than one unexcused absences will result in a reduction of the final course grade by one letter grade for each additional absence.
Students are responsible for any content covered in the event of an absence, including acquiring handouts, lecture notes, or making up assignments/quizzes. If you miss class, it is your responsibility to contact the instructor, preferably in advance via email, for materials and assignments.

**Late Work**

Late submissions of assignments/projects will result in a five (5) point deduction per day. In the case of illness or other special circumstance, notification should be given as soon as possible and before the deadline in question.

**Writing Center**

The Miller Writing Center (MWC) provides free writing support for all Auburn Students. Trained consultants are available to talk with you as you plan, draft, and revise your writing. Please check the Miller Writing Center website (http://wp.auburn.edu/writing/writing-center/) for locations, hours, and information about scheduling appointments.

**Special Notices**

Students with disabilities who require special accommodations should contact the instructor by email to arrange a meeting during the first two weeks of classes, or as soon as possible if accommodations are needed immediately. Please bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have these documents but need accommodation, please make an appointment with the Program for Students with Disabilities, 1244 Haley Center, 844-2096.

**Academic Honesty**

All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to this class. Cases of academic dishonesty will be turned over to the AU Committee for Academic Honesty.

**Course Schedule**

See the schedule below for the list of weekly readings and other assignments.

The schedule is subject to change to adapt to the course progress.

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### January

**Theme 1. Theory and Principles**

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<th>Topic</th>
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| 1   | Thu 11 | Course introduction and syllabus review  
Discussion | Generalists, specialists, and the role of landscape architecture in ecological design |
| 2   | Tue 16 | PROJECT 1 ASSIGNED: Urban Metabolisms  
Lecture 01 | Ecology, Creativity, and the City |
|     | Thu 18 | Reading Discussion  
1. Weeding the Jungle, Rambunctious Garden, Marris, p 1 to 16  
2. Ecology and Landscape as Agents of Creativity, Corner, p 80 to 108  
Weekly Quiz 01 |
| 3   | Tue 23 | Lecture 02 | Complexity and Resilience: From Ecology to Ecologies  
Reading Discussion |
|     | Thu 25 | Reading Discussion  
1. The Yellowstone Model, Rambunctious Garden, Marris, p 17 to 36  
2. Ecology and Design: Parallel Genealogies, Reed & Lister, p 1 to 26  
Weekly Quiz 02 |

**Theme 2. Interrelationships**

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<tr>
<td>4</td>
<td>Tue 30</td>
<td>Lecture 03</td>
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## February

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<th>Week</th>
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<th>Event Details</th>
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|     | Thu 01 | Reading Discussion  
1. The Forest Primeval, Rambunctious Garden, Marris, p 37 to 56  
*Weekly Quiz 03* |
| Wk 5 | Tue 06 | PROJECT 1 DRAFT DUE: Urban Metabolisms poster  
Lecture 04 Dynamic Relationships 2: Biogeochemical Cycles |
|      | Thu 08 | Reading Discussion  
1. Radical Rewilding, Rambunctious Garden, Marris, p 57 to 72  
2. A Distinct Urban Biogeochemistry, Kaye et al, p 192 to 199  
*Weekly Quiz 04* |
| Wk 6 | Tue 13 | Lecture 05 Structural Relationships in Landscape Ecology |
|      | Thu 15 | Reading Discussion  
1. Assisted Migration, Rambunctious Garden, Marris, p 73 to 96  
2. Landscape Ecology Principles, Forman et al, review pdf of collected drawings  
*Weekly Quiz 05* |
| Wk 7 | Tue 20 | PROJECT 1 DUE: Urban Metabolisms in-class group poster presentations  
PROJECT 2 ASSIGNED: Illustrated evaluation paper |
|      | Thu 22 | Reading Discussion  
1. The Fit, Seeing Nature, Krafel, p 21 to 26  
2. Beyond Urban Legends, Pickett et al, p 139 to 150  
*Weekly Quiz 06*  
Fieldwork homework: Working in teams, locate examples of Krafel’s “Fit” within walking distance of Dudley Hall. Prepare to visit and lead a discussion of your example in class on 2/27. |
| Wk 8 | Tue 27 | CAMPUS WALK: dress accordingly for rain or shine |

## March

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<th>Week</th>
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|     | Thu 01 | Reading Discussion  
1. Learning to Love Exotic Species, Rambunctious Garden, Marris, p 97 to 110  
2. The Flora of the Future, Del Tredeci, p 1 to 28  
*Weekly Quiz 07* |
| Wk 9 | Tue 06 | MLA 1 Field Studies Trip  
Project 2 Outline Workshop for non-MLA Students |
|      | Thu 08 | MLA 1 Field Studies Trip  
Project 2 Outline Workshop for non-MLA Students |
| Wk 10 | Tue 13 | Spring Break  
Thu 15 Spring Break  
*Monday, March 19th Project 2 Outline Workshop for MLA 1 Students (during studio time)* |
| Wk 11 | Tue 20 | No Class – Instructor at CELA Conference  
Thu 22 No Class – Instructor at CELA Conference |

### Theme 3: Places and Precedents

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<th>Week</th>
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| Wk 12 | Tue 27 | Lecture 06 Terrain Vague: Remnants, Wastelands, and Infrastructure Landscapes  
Thu 29 Reading Discussion  
1. Novel Ecosystems, Rambunctious Garden, Marris, p 111 to 122  
2. Novel Ecosystems: Theoretical and Management Aspects..., Hobbs et al, p 1 to 7  
*Weekly Quiz 08* |
### April

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<tr>
<td>13</td>
<td>Tue</td>
<td>PROJECT 2 DRAFT DUE: Illustrated evaluation paper</td>
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<td>Lecture 07 Waterfront and Park Landscapes</td>
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<td>Thu</td>
<td>Reading Discussion</td>
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<td>1. Designer Ecosystems, Rambunctious Garden, Marris, p 123 to 132</td>
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<td>2. Ecological Design or Designer Ecology?, Lister, p 35 to 57</td>
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<td><strong>Weekly Quiz 09</strong></td>
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<td>14</td>
<td>Tue</td>
<td>Lecture 08 Suburban and Exurban Landscapes</td>
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<td>Thu</td>
<td>Reading Discussion</td>
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<td>1. Conservation Everywhere, Rambunctious Garden, Marris, p 133 to 152</td>
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<td>2. The Trouble with Wilderness, Cronon, p 69 to 90</td>
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<td><strong>Weekly Quiz 10</strong></td>
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<td>15</td>
<td>Tue</td>
<td>Lecture 09 Local-Global: The Scales of Urban Landscapes</td>
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<td>Thu</td>
<td>Reading and Class Wrap Up Discussion</td>
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<td>1. A Menu of New Goals, Rambunctious Garden, Marris, p 153 to 172</td>
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<td><strong>Weekly Quiz 11</strong></td>
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<td>16</td>
<td>Tue</td>
<td>APLA Final Reviews (No class, instructor available for office hours by appointment)</td>
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<td></td>
<td>Thu</td>
<td>APLA Final Reviews (No class, instructor available for office hours by appointment)</td>
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### May

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<tr>
<td>17</td>
<td>Tue</td>
<td>PROJECT 2 DUE: Illustrated evaluation paper [all documents due digitally on the course server folder by 5pm]</td>
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