2015

Syllabus: Sustainable Cities Seminar

Mark Hamin
University of Massachusetts - Amherst

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Goals: ‘Sustainability’ is a concept and approach that has become more prevalent in ecological, economic and equity discussions over the last several decades, yet its historical and cultural roots are far more extensive than has been usually recognized. This course aims to examine + evaluate core principles and practices identified by advocates as well as adversaries of sustainability, and address a variety of questions related to sustainability: the appropriate spatial and temporal scale of sustainable planning and design; the full scope of which systems and standards are best suited for achieving sustainable outcomes; the relative roles of ‘high’ vs. ‘low’/‘hard’ vs. ‘soft’ science and technology paths; expertise ↔ efficiency ↔ equity; individual vs. collective responsibilities; and the interdependence of ecology, economy, empowerment/engagement in civic revitalization.

Course Readings (available at Amherst Bookstore, 8 Main St., or on limited reserve in LARP)
Stephen Wheeler and Timothy Beatley, eds., The Sustainable Urban Development Reader. 3rd ed. NY: Routledge, 2009 [also noted as W&B, eds. for Part 7 exercises; see below]
Susan Strasser, Waste and Want: A Social History of Trash. NY: Metropolitan, 1999

Evaluation: Grading of student work will rely upon the following weighted criteria:

- 15% for attendance, preparation and participation (reading, discussing, in-class work)
- 40% for exercises completed outside of class, and related in-class collaborative work
- 15% for an in-class presentation (possible topics, formats, case studies TBA)
- 30% for a self-designed final project (guidelines and timelines TBA)

Note: Given the importance of each of these criteria for evaluating students’ work, anyone who needs to miss a class meeting, turn in an assignment after deadline, or request other arrangements must address such matters with the instructor as far in advance as possible. Only urgent reasons or unusual circumstances will receive consideration in such cases. Please familiarize yourself, if you have not already, with university policies regarding plagiarism, disability, health issues, etc.

www.umass.edu/dean_students/downloads/CodeofStudentConduct.pdf
The University of Massachusetts is committed to providing equal educational opportunity for all students. If you have a documented physical, psychological, or other learning disability on file with UMass Disability Services [http://www.umass.edu/disability/](http://www.umass.edu/disability/), you may be eligible for reasonable accommodations to help you succeed better in this course. If you have a documented disability that requires an accommodation, please notify me at the start of the semester so that we may make appropriate arrangements.

It is expected that all students will abide by the Student Honor Code and the Academic Honesty Policy (available at the Academic Honesty Office (Ombud’s Office) or online at [http://www.umass.edu/dean_students/codeofconduct/acadhonesty/](http://www.umass.edu/dean_students/codeofconduct/acadhonesty/) [http://www.umass.edu/ombuds/honesty.php/](http://www.umass.edu/ombuds/honesty.php/)

Sanctions for acts of dishonesty range from receiving a course grade of F, probation or suspension for a period of time, or dismissal. Students have the right of appeal through the academic honesty board.

We are all responsible for maintaining an environment that is conducive to learning and discussion. In order to assure that we all have the opportunity to gain from our time in class, please review and respect these standards for creating a reciprocally responsible learning environment.

- The instructor and students will recognize and respect each other.
- Respect may include appropriate humor, enjoyment, or other indications of a comfortable and pleasant classroom community.
- We will be on time for class: no late arrivals and no packing up early.
- We will avoid disruptions during class such as loud noises, private conversations, reading newspapers, speaking on cell phones or texting, using a laptop for something other than current classroom work, and, of course, sleeping.
- We will avoid negative language that is considered racist, sexist, homophobic, etc. or in other ways may exclude or disturb members of our campus and classroom community.

Attendance is not mandatory, but is factored into the participation grade. The instructor reserves the right to give an incomplete or F for any student with over four unexcused absences, and will make exceptions only for medical and family emergencies or other pre-approved reasons. The letter grade equivalents to the numerical scores are:

- > 94 = A; 90-94 = A-; 87-90 = B+; 83-87 = B; 80-83 = B-; 77-80 = C+; 73-77 = C;
- 70-73 = C-; 63-70 = D; <63 = F
Although you will be graded for the overall quality of engagement and achievement with regard to class readings and assignments, here is a basic breakdown of what will be expected:

**Attendance, preparation and participation (15%)**: Attendance will be marked according to the assignments you turn in. We will circulate an attendance sheet, especially for the meetings when no assignment is due; be sure to look for that in class. Because this is ‘low-hanging fruit’, it can help improve your grade overall if you attend regularly, participate, and turn in work on time.

**Weekly exercises (40%)**: Part 7 of the Wheeler and Beatley, eds. collection has 14 different exercises, varying in scale, scope and focus of work involved. A number of them *as written* are intended to require extensive research, several phases, teamwork during class time, etc. Because of the organization of this course, we will *not* do these exercises *strictly as written*; we will need to adapt them to be completed individually as 1-2 page assignments completed mostly outside of class roughly once or twice a week, with some discussion and elaboration of them in class.

**In-class presentation (15%)**: For this assignment, you’ll submit a 1-2 page proposal, identifying your topic, thematic focus, sustainability context, role as presenter, intended audience, project goal(s), genre, medium, etc. When I review your proposals, I’ll schedule them when and where appropriate over the course of the semester. For that presentation, you will present ‘in character’ appropriate to your identified role, audience, and format. The goal will be effective, non-esoteric public communication of a sustainability topic in an informative, persuasive, etc. way.

**Self-designed final project (30%)**: This is your opportunity to take initiative and to pursue work on sustainable practices based on your own interests and goals. You will select a topic/thematic focus, either from a list provided by the instructor, or your own choice with instructor approval. The focus of your project research is to identify and address key sustainability issues related to our course readings and lectures. You will then write a 1-2 page proposal detailing your project strategy in terms of genre (e.g., case study, comprehensive review, critical analysis, correlated comparison), format/medium (e.g., paper, slideshow, storyboard, portfolio, map, model, multimedia, performance), audience, and goals, as well as a subsequent progress report and final project submission. *Please aim for transformative, integrative practice in all of your work!*
### Part I: Introduction and Orientation

<table>
<thead>
<tr>
<th>Week 1</th>
<th>1/21/15</th>
<th>Determinations</th>
<th>What Is (Not) Sustainability?</th>
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</thead>
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**Readings:** Roseland, Chapter 2; Howard, Calthorpe (Part 2) in Wheeler and Beatley, eds.

**Assignment:** *Cognitive Mapping Exercise due (see W&B.)*

### Week 2: Representations

<table>
<thead>
<tr>
<th>1/26/15</th>
<th>Readings: Roseland, Chapter 2; Howard, Calthorpe (Part 2) in Wheeler and Beatley, eds.</th>
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<tbody>
<tr>
<td>Assignment: <em>Cognitive Mapping Exercise due (see W&amp;B.)</em></td>
<td>[video excerpts]</td>
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### Week 2: History and Culture

<table>
<thead>
<tr>
<th>1/28/15</th>
<th>Readings: Strasser, 3-28, 69-80, 106-9; Lewis Mumford, Jane Jacobs in Wheeler and Beatley, eds.</th>
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<tbody>
<tr>
<td>Assignment: <em>Definitions of Sustainable Development Exercise due (see W&amp;B.)</em></td>
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### Week 3: Principles

<table>
<thead>
<tr>
<th>2/02/15</th>
<th>Readings: Roseland, Ch. 1; Shutkin, Preface ix-xvii and Introduction 1-20</th>
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<tbody>
<tr>
<td>Team Reports: Meadows et al., WCED, UN Rio, UN Millennium in W&amp;B, eds.</td>
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<tr>
<th>2/04/15</th>
<th>Practices</th>
<th>Tools, Techniques, Metrics</th>
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<tbody>
<tr>
<td>Readings: Roseland, Ch. 16; Shutkin, Chapter 1, 21-44</td>
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### Week 4: Ecology

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<thead>
<tr>
<th>2/09/15</th>
<th>Readings: Roseland, Ch. 4; Leopold, Spirn, Beatley (Part 2) in Wheeler and Beatley, eds.;</th>
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<tbody>
<tr>
<td>Assignment: <em>Sustainability Indicators Exercise due (see W&amp;B, eds.)</em></td>
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<tr>
<th>2/11/15</th>
<th>Economy</th>
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<tr>
<td>Readings: Roseland, Ch. 12; Frank, Daly in Wheeler and Beatley, eds.;</td>
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<tr>
<td>Assignment: <em>Economic Development Exercise due (see W&amp;B, eds.)</em></td>
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<tr>
<td>Related to: Pearce and Barbier, Hawken, Korten, Shuman, Roseland with Soots, or Renner et al. in Wheeler and Beatley, eds.</td>
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Part II  Systems and Standards

Week 5

2/17/15  Expertise and Experience
Readings: Roseland, Ch. 3; Strasser, 111-125; McKibben in Wheeler and Beatley, eds.
Assignment: In-class presentation proposal due

2/18/15  Energy
Readings: Roseland, Ch. 7; Girardet, Brown, Leonard in Wheeler and Beatley, eds.
Assignment: Personal Footprint/Household Audit Exercise due (see W&B, eds.)

Week 6

2/23/15  Waste
Readings: Roseland, Ch. 6; Strasser, 125-36; Lyle, Pacala and Socolow in Wheeler and Beatley, eds.

2/25/15  Water
Readings: Roseland, Ch. 5; McHarg, Riley, Glieck in Wheeler and Beatley, eds.
Assignment: Waterway Mapping Exercise due (see W&B, eds.)

Week 7

3/02/15  Air
Readings: Roseland, Ch. 13; Gehl, Solecki et al. in Wheeler and Beatley, eds.

[3/04/15  LARP midsemester studio presentations; no class meeting]

Week 8

3/09/15  Land
Readings: Roseland, Ch.9; Wheeler (Part 2), Bulkeley et al. in Wheeler and Beatley, eds.

3/11/15  Food
Readings: Shutkin, Chapter 4, 143-66; Strasser, 181-91; Pollan, Shiva in Wheeler and Beatley, eds.
Assignment: Firsthand Environmental Analysis Exercise due (see W&B, eds.)
Week 9  
3/23/15  Transportation 
Readings: Roseland, Ch. 8; Shutkin, Chapter 5, 167-88; Cervero in Wheeler and Beatley, eds. 
Assignment: Self-designed final project proposal due 
3/25/15  Housing and Construction 
Readings: Roseland, Ch. 10; Eisenberg and Yost, USGBC, Sharp in Wheeler and Beatley, eds. 
Assignment: Ecological Site Plan Exercise due (see W&B, eds.)

Part III  Scale and Scope

Week 10  
3/30/15  Green Design and Architecture 
Readings: Roseland, Ch. 11; McDonough, Vale and Vale, Steiner in W&B, eds. 
4/01/15  International Comparisons 
Readings: Svedin et al; and Part 4 (choose one reading) in W&B, eds. 
Assignment: International Development Exercise due (see W&B, eds.)

Week 11  
4/06/15  Building or Site Scale; Neighborhood or District Scale 
Readings: see Part 6 in Wheeler and Beatley, eds. 
Assignment: Neighborhood Planning Exercise due (see W&B, eds.) 
4/08/15  City and Regional Scale 
Readings: see Part 6 in Wheeler and Beatley, eds.; Shutkin, Ch. 6 
Assignment: Regional Vision Exercise due (see W&B, eds.)

Part IV  Security and Sovereignty, Virtue and Vision

Week 12  
4/13/15  Ecology/Economy/Equity/Engagement: Place Matters 
Readings: Strasser, 136-53; Shutkin, Ch. 2, 45-77; Ch. 7, 209-13, 222-35
4/15/15  Ecology/Economy/Equity/Engagement: Race etc. Matters

Readings: Shutkin, Chs. 2 and 3, 78-110;
Bullard, Hayden in Wheeler and Beatley, eds.
Assignment: Self-designed final project progress report due

Week 13  [4/20/15  University Holiday – Monday Class meets on Wednesday]

4/22/15  Ecology/Economy/Equity/Engagement: Marketplace Matters

Readings: Strasser, 153-9; 191-201, 274-8; Shutkin, Ch. 3, 110-141;
Perlman and Sheehan in Wheeler and Beatley, eds.
Assignment: Role Playing Exercise due (see W&B, eds.)

Week 14  4/27/15  Reconstructing Community and Democracy

Readings: Roseland, Chs. 14, 17; Shutkin, Chapter 8, 237-44;
Assignment: Mapping Your Own Block Exercise due (see W&B, eds.)

4/29/15  The Future(s) of Sustainability

Readings: Roseland, Ch. 18; Strasser, 278-93
Callenbach, Le Guin, Wheeler (Part 5), Wheeler and Beatley, eds.
Assignment: Future Visions Exercise due (see W&B, eds.)

Week 15  5/06/15  [Optional] gallery display and discussion of final projects

Assignment: Self-designed final project submission due