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 is generally recognized. This course aims to examine + evaluate the root principles and practices identified by advocates as well as adversaries of sustainability, and address a range of questions related to sustainability: the appropriate spatial and temporal scales of sustainable planning and design; the scope of systems and standards as have been appropriate for achieving sustainable outcomes; the respective roles of traditional + indigenous science and technology paths; expertise ↔ efficiency ↔ equity; individual vs. collective responsibilities; and the historical interdependence of ecology, economy, empowerment/engagement in 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, 2014 \[also noted as W&B, eds. for Part 7 exercises; see below\]

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

15% for attendance, preparation and participation (reading, discussing, in-class work)
60% for weekly exercises completed outside of class (12-14 exercises, up to 5 pts. each)
25% for self-designed final project (5 pts. proposal, 8 pts. progress report, 15 pts. final)

Given the importance of each of these criteria for evaluating students’ course 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. http://www.umass.edu/dean_students/codeofconduct
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/, you may be eligible for reasonable accommodations to help you better succeed 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 found online at https://www.umass.edu/dean_students/academic_policy. Potential sanctions for dishonesty may 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.

Library liaison: Madeleine Charney http://guides.library.umass.edu/profile.php?uid=5550

We are all responsible for maintaining an environment that is conducive to learning and discussion. In order to assure that all have opportunity to benefit 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 racist, sexist, homophobic, transphobic, etc. or in other ways may exclude or disrespect 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 evaluated for the overall quality of your work, involvement and engagement with class readings, and assignments, here is a basic breakdown of what will be expected of you in order to do well in the course (116 potential points total, grade out of 100):

*Attendance, preparation and participation (15%)*: There are 26 class meetings over the course of the semester. You basically receive ½ point for each class you attend, or 1 point for each class in which you participate in group discussion, for a potential total of 19 points overall, so you have a cushion toward the 15%. Attendance will be marked according to the assignments you turn in or pick up, with extra credit for in-class annotation. Because this is ‘low-hanging fruit’, it can help raise your grade overall if you attend regularly, participate, and turn in work on time.

*Weekly exercises (60%)*: 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 size and organization of this course, you will *not* do these exercises *strictly as written*; we will adapt them to be completed individually as 1-2 page assignments completed mostly outside class roughly once or twice a week. You can basically earn up to 5 points for each assignment, for a potential total of 70 points overall, so you have a cushion toward the 60%.

*Self-designed final project (25%)*: 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, multi-media), audience, and goals. Grades for the assignment will consist of three parts: a potential 5 points for the proposal; 8 points for a progress report, prototype, draft or outline of the project several weeks later; 15 points for the final product you submit -- a potential of 28 points overall, so you have a cushion toward the 25%. *Please aim for your project development process and product to be transformative and integrative relative to your understanding of sustainability!*
### Part I  
**Introduction and Orientation**

#### Week 1

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td>1/22/19</td>
<td>Expectations</td>
<td>Groundrules and Guidelines</td>
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<tr>
<td>1/24/19</td>
<td>Representations</td>
<td>[video excerpts]</td>
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<td>Readings: Roseland, Ch. 2; Howard, Calthorpe (Part 2) in Wheeler and Beatley, eds.</td>
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#### Week 2

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<thead>
<tr>
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<tr>
<td>1/29/19</td>
<td>Determinations</td>
<td>What Is (Not) Sustainability?</td>
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<tr>
<td>2/05/19</td>
<td>Principles</td>
<td>Theories, Frameworks, Definitions</td>
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<td>2/07/19</td>
<td>Practices</td>
<td>Tools, Techniques, Metrics</td>
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<td>2/12/19</td>
<td>Ecology</td>
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<td>2/14/19</td>
<td>Economy</td>
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<tr>
<td>1/31/19</td>
<td>Culture</td>
<td>Readings: Jane Jacobs, Allan Jacobs in Wheeler and Beatley, eds.</td>
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<td>Assignment: Cognitive Mapping Exercise due (see W&amp;B, eds., Part Seven)</td>
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<td>Readings: Lewis Mumford, Ian McHarg in Wheeler and Beatley, eds.</td>
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<td>Assignment: Definitions of Sustainable Development Exercise due (W&amp;B, eds.)</td>
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<td>Readings: Roseland, Ch. 1; Meadows et al., WCED, UN Rio in Wheeler and Beatley, eds.</td>
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<td>Assignment: Definitions of Sustainable Development Exercise due (W&amp;B, eds.)</td>
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<td>Readings: Roseland, Ch. 16; Maclaren, Wackernagel/Rees, Hsu in Wheeler and Beatley, eds.</td>
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<td>Assignment: Sustainability Indicators Exercise due (see W&amp;B,eds.)</td>
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Part II  Systems and Standards

Week 5  [2/19/19]  University Holiday; Monday schedule followed; no class meeting

2/21/19  Expertise and Experience
Readings: Roseland, Ch.3; McKibben, Bulkeley et al. in W&B, eds.

Week 6  2/26/19  Energy
Readings: Roseland, Ch. 7; Girardet, Brown, Leonard in Wheeler and Beatley, eds.
Assignment: Personal Footprint/Household Audit Exercise due (see W&B, eds.)

2/28/19  Waste
Readings: Roseland, Ch. 6; Lyle, Pacala and Socolow in Wheeler and Beatley, eds.

Week 7  [3/05/19]  LARP midsemester studio presentations: no class meeting

3/07/19  Water
Readings: Roseland, Ch. 5; Riley, Glieck in Wheeler and Beatley, eds.
Assignment: Waterway Mapping Exercise due (see W&B, eds.)

[3/11-15/19]  University Spring Recess; no class meetings

Week 8  3/19/19  Air and Land
Readings: Roseland, Chs. 9, 13; Gehl, Wheeler (Part 2) in Wheeler and Beatley, eds.

3/21/19  Food
Readings: Roseland, Ch. 4; Pollan, Shiva in Wheeler and Beatley, eds
Assignment: Firsthand Environmental Analysis Exercise due (see W&B, eds.)


**Week 9**  
3/26/19  **Transportation**
Readings: Roseland, Ch. 8; Cervero, Newman and Kenworthy in Wheeler and Beatley, eds.
Assignment: *Self-designed project proposal due*

3/28/19  **Housing and Construction**
Readings: Roseland, Ch. 10; Eisenberg and Yost, USGBC, Sharp in Wheeler and Beatley, eds.
Assignment: *Ecological Site Exercise due (see W&B.)*

**Part III**  **Scale and Scope**

**Week 10**  
4/02/19  **Green Design and Architecture**
Readings: Roseland, Ch. 11; McDonough, Vale and Vale, Steiner in W&B, eds.

4/04/19  **International Comparisons**
Readings: Solecki et al.; and Part 4 (choose one reading) in W&B, eds.
Assignment: *International Development Exercise due (see W&B, eds.)*

**Week 11**  
4/09/19  **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.)*

4/11/19  **City and Regional Scale**
Readings: see Part 6 in Wheeler and Beatley, eds.
Assignment: *Regional Vision Exercise due (see W&B, eds.)*

**Part IV**  **Security and Sovereignty, Virtue and Vision**

**Week 12**  
4/16/19  **Ecology/Economy/Equity/Engagement: Place Matters**
Readings: Perlman and Sheehan, Shuman in Wheeler and Beatley, eds.

4/18/19  **Ecology/Economy/Equity/Engagement: Race, Class, Gender, Generation, Ability, etc. Matters**
Readings: Bullard, Hayden in Wheeler and Beatley, eds.
Assignment: Self-designed project progress report due

**Week 13**  4/23/19  Ecology/Economy/Equity/Engagement: Marketplace Matters

Readings: Hawken, Roseland with Soots in Wheeler and Beatley, eds.
Assignment: Role Playing Exercise due (see W&B, eds.)

4/25/19  Reconstructing Community and Democracy

Readings: Roseland, Ch. 14, 17; Svedin et al in Wheeler and Beatley, eds.
Assignment: Mapping Your Own Block Exercise due (see W&B, eds.)

**Week 14**  4/30/19  The Future(s) of Sustainability

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

**Week 15**  5/07/19  [Optional TBD] gallery display and discussion of final projects

Assignment: Self-designed final project submissions due