

CORNELL UNIVERSITY  
Fall 2009  
City and Regional Planning

## CRP 384/584: Green Cities

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Location: Sibley 101  
Day/time: Tuesdays and Thursdays, 10:10 – 11:25  
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**Course website:** <http://courses.cit.cornell.edu/crp384/index.html>

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### **Course Description**

This course examines social, economic, cultural, political and environmental dimensions of sustainability and sustainable development in urban areas. Specific areas of focus include indicators of local (and personal) sustainability, the history of sustainable urban development, Land use and sprawl, open space and green infrastructure, sustainable transportation, the built environment, green architecture, water management, renewable energy, Environmental justice, local sustainable economies, food systems, and environmental challenges in the developing world. This course employs a wide variety of formats to engage students in the material, including lectures, guest speakers, small group discussions, documentary films, student response pieces and activities (both in and out of class) such as a role playing simulation, a series of student led debates, and a final case study project and presentation. The format of the course will generally be organized around a lecture, presentation, or talk followed by small group discussion concerning the presentation, homework assignment, or readings. We will (obviously) deviate from this format to accommodate the student debates, documentary films, role playing simulation, and student presentations.

### **Grading:**

#### Debates: 25%

Over the course of the semester, we will engage in a number of presentation-style debates over salient issues concerning sustainable cities. These will include 1) Smart growth vs. sprawl, 2) Public transit vs. automobile, 3) Fossil fuels vs. renewable energy sources, and 4) Local vs. global economies. The debates will be organized as follows: At the beginning of the semester, the class will be divided into equal groups of four, with each group assuming the responsibilities for 1 debate. Each group will then subdivide into two approximately equal sub groups, each of which will assume a position. Each debate team

will be able to communicate with each other via Blackboard – go to ‘Communication’/ ‘Group pages’, and click on your debate teams to send email, share documents, etc. Each group of students is free to define the issue as they see fit based on the readings. In turn, each of these groups will choose a spokesperson to make the case. Each "side" will have 20 minutes to make its presentation and 10 minutes to comment on the other side's presentation. Students are expected to provide a handout or outline of their main arguments. I am interested in how well you prepared and presented your ideas, not on the point-of-view you adopted. You might want to think about taking a "side" that is contrary to your usual view in order to stretch your thinking. Each Debate team performance will be given a grade by the TA and myself. See sample debate rubrics for how the debates will be graded (located in the Course Information folder on Blackboard). In addition, all teams will use will use a peer review process to grade each other’s performance internally (worth 5%).

Final project/presentation: 25%/5%

Students should work in groups of 2 and 3 on a topic of their choice. Groups will be responsible for presenting on their particular case as well as posting their case study to a website (details to follow). Case studies can be centered on a specific example or case study of sustainable development, or on a city or metropolitan area’s effort to implement sustainable development, or can address a thematic issues (ie sprawl), which we have addressed in class. A no more than 1 page proposal is due by September 24. In addition, we will schedule time in late October for all groups to meet with the instructor. Please see the course website for sample projects from last year:

<http://courses.cit.cornell.edu/crp384/index.html>

Assignments: 30%

The course will include a total of approximately 8 weekly assignments (these tend to be front loaded), which will vary in content and nature. They will be due at the start of class, and (generally) should be no more than 1 page. They will graded as follows (late responses will be docked a point, up to 3 days, after which they will not be accepted):

- √- student has failed to fully complete all parts of the assignment
- √ student has adequately answered the assignment requirements
- √+ student has gone above and beyond the assignment requirements

Please submit the assignments via the ‘Assignments’ link in Blackboard. Do NOT email the assignments as an attachment to either myself or the TAs, nor should you place the assignments in the ‘Drop box’ on Blackboard. These will not be graded and you will receive no credit for them.

Participation: 15%

Class time is organized to include small group discussions, which will be based on the readings and class presentations/lectures, as well as activities such as an in-class role playing simulation. The groups will be established at the beginning of the semester and will remain fixed (for the most part) throughout the semester. Each group will have a rotating discussion leader whose job it will be to facilitate and organize group discussion (Guidelines for the discussion leader are available on Blackboard under ‘course information’). The participation component of the course grade will in part be determined

by your peers, on a scale from 1 (lowest) to 10 (highest). Peer review will be based on the following rubrics:

- 1) *Preparation*: Did the student come prepared to discuss the material?
- 2) *Comprehension*: Did the student understand the material?
- 3) *Engagement*: Was the student involved and engaged in group participation?
- 4) *Creativity*: Did the student offer creative and insightful input?
- 5) *Collaboration*: Was the student will to listen, negotiate, and compromise?

We will undertake a peer evaluation toward the end of the semester.

**Note:** Information about both the Debate teams and the small group teams will be posted under the 'Group Info' folder in the course Information folder on Blackboard.

#### Academic Integrity:

Each student in this course is expected to abide by the Cornell University Code of Academic Integrity (<http://cuinfo.cornell.edu/Academic/AIC.html>). Any work submitted by a student in this course for academic credit will be the student's own work; team assignments will be considered group work. Please cite all work that you rely on in your own written work; direct quotations of other work should be enclosed with quotation marks, with a citation afterward that contains the page number of the work where available. When you rely substantially on another person's work without quoting from it directly, please use in-text citations at the end of an appropriate section. Failure to provide complete and proper citations may constitute plagiarism, which violates the Cornell Code of Academic Integrity. If detected, plagiarism may result in a failing grade for the course. In compliance with the Cornell University policy and equal access laws, I am available to discuss appropriate academic accommodations that may be required for students with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances, so arrangements can be made.

Please note: In recent years, increasing numbers of students have been bringing their laptops to class. Sometimes this is for note taking, but too often web-surfing and e-mail checking becomes irresistible. This corrodes the classroom environment, and as a consequence I am asking that you **not use your laptop in class**. Please see me if you have questions or need an exception to this policy.

#### Books

Required: *The Sustainable Urban Development Reader*, edited by Stephen M. Wheeler and Timothy Beatley. Routledge. 2004.

Recommended: Roseland, M. (2005) *Towards Sustainable Communities: Resources for citizens and their governments*.

In addition, supplemental readings will be made available in digital format and will be posted on Blackboard (or if web based, a link will be available through Blackboard). There are, however, a few book chapters to read. In this case, copies will be available on reserve through the Fine Arts library.

**Thursday, August 27<sup>th</sup>**: Introduction to the course and overview of the syllabus

**Tuesday, September 1: Green Cities and sustainable development**

*Readings:*

Blackboard/Online: Mooallem, J. “The end is near (yay!)” *The New York Times Magazine*, April 6 (somewhat long – skim)

<http://www.nytimes.com/2009/04/19/magazine/19town-t.html>

Blackboard: Wheeler, Stephen (2004) *Planning for Sustainability: Creating Livable, Equitable and Ecological Communities* Chapter 4: “Planning and the Three E’s”

Blackboard: Gordon, 2005 "Sustainability planning: First, do no harm"

*Class:* Introductory lecture on sustainable development, eco-footprints, and personal lifestyle. Introduction to final projects. Establishment of debate teams.

**Thursday, September 3: Sustainable development indicators**

*Readings:*

The Sustainable Urban Development Reader: Maclaren, V. “Urban Sustainability reporting” p.281

The Sustainable Urban Development Reader: Wackernagel, M. and Rees, W. ”What is an Ecological footprint?” p.289

*Class:* Discussion of local vs global indicators, measuring causes vs effects, and overview of local sustainability initiatives. Establishment of small groups and passing out of group facilitator material followed by small group discussion on eco-footprint analysis and local sustainability indicators.

*Assignment #1 due:* Calculate your eco footprint <http://www.myfootprint.org/en/>. Include a brief (no more than 1 page!) write up as well in which you address the following:

- What aspects of your lifestyle contribute most/least to your overall eco-footprint?
- What are some ways you might possibly reduce your eco footprint?
- Chose 1 or 2 areas to address during the class to be evaluated again at the end of the semester.

**Tuesday, September 8: Early Green City Plans:**

*Readings:*

The Sustainable Urban Development Reader:

“The Three Magnets and The Town-Country Magnet”, Ebenezer Howard, p.11

Blackboard: Birch, E. "Five Generations of the Garden City: Tracing Howard's legacy in 20<sup>th</sup> century residential planning" in *From garden City to Green City: The Legacy of Ebenezer Howard*, Parsons, KC and Schuyler, D.

Blackboard: Ward, S. "The Howard Legacy" in *From garden City to Green City: The Legacy of Ebenezer Howard*, Parsons, KC and Schuyler, D.

Class: Lecture on early green city plans followed by small group discussion: What has been the legacy of Howard's Garden city movement? What aspects have been successful? Which have disappeared?

### **Thursday, September 10: Urban sprawl and smart growth**

Class: FILM: "Land: How it got that way" followed by in class discussion of the film.

### **Tuesday, September 15: Causes and consequences of sprawl**

Readings:

Blackboard: Ewing, Pendall, and Chen (2003) "Measuring Sprawl and Its Impact" Smart Growth America

Class: Lecture presentation on the causes and consequences of sprawl, outline of the sprawl debate, followed by small group discussion concerning the homework. Did you grow up in "sprawl"? How or why did you come to that conclusion (based on the four factors discussed in the article)

Assignment #2 due: Based on the article "Measuring sprawl and its impact," analyze and critique the town or region in which you grew up. Write a couple paragraphs addressing the following questions:

- Would you classify the place you grew up in as sprawl? Why?
- Discuss the 'sprawliness' of your town or region for each of the factors discussed in the article (Mix of jobs, shops and housing, Street Network, Residential Density, and Centers of activity).
- Based on this, what recommendation would you make for each factor in order to reduce your community's 'sprawliness'?

### **Thursday, September 17: The debate over sprawl**

Each side should take a position either for or against sprawl. You should also familiarize yourself with the arguments for the other side and be ready to respond. Each side should come prepared with an outline of their arguments and counterarguments to distribute to the class. The debate will be followed by a Q and A session.

Readings posted to Blackboard

Readings Note: These are only meant to be a guide. Feel free to do your own research in addition.

## **Tuesday September 22: Open space preservation and Green Infrastructure planning**

### Readings:

Blackboard: Amundsen, O., Allen, W., and Hoellen, K. Green Infrastructure Planning: Recent advances and applications, American Planning Association memo, May/June 2009

The Sustainable Urban Development Reader: Spirn, A. "City and nature" p.139

The Sustainable Urban Development Reader: Beatley, T. "Land development an endangered species: emerging conflicts" p.145

The Sustainable Urban Development Reader: Riley, A. "What is restoration?" p.149

Class: guest lecture by Ole Amundsen, The Conservation Fund

## **Thursday, September 24: Sustainable Transportation within international context**

### Readings

The Sustainable Urban Development Reader, Beatley: "Planning for Sustainability in European Cities: A Review of practices in leading cities" p.330

Class: Film: "Contested Streets," followed by discussion of film.

Due: Final project proposal (no more than 1 page)

## **Tuesday, September 29 Sustainable Transportation within international context**

### Readings:

Blackboard: Pucher, J. (1997) Bicycling Boom in Germany: A Revival Engineered by Public Policy, *Transportation Quarterly*, vol.51(4)

[http://danenet.wicup.org/bcp2006/bta/admin/cycle\\_tq.pdf](http://danenet.wicup.org/bcp2006/bta/admin/cycle_tq.pdf) Fall 1997

### Responses:

Blackboard: Gordon, P. and Richardson, H. (1998) "Bicycling Boom in Germany: A Revival Engineered by Public Policy. A Comment", *Transportation Quarterly*, vol 52(1) pp 9-12 <http://www-rcf.usc.edu/~pgordon/bicycling.html>

Blackboard: Wachs, M. (1998) Discussion of "Bicycling Boom in Germany: A Revival Engineered by Public Policy" By John Pucher, *Transportation Quarterly*, vol 52(1)

Blackboard: Forester, J. "Review of: Bicycling Boom in Germany: A Revival Engineered by Public Policy Responses" <http://www.johnforester.com/Articles/Social/Pucher01.htm>

Class: Brief lecture on transportation policy in Germany, followed by small group discussion.

Assignment #3 due: Based on both the film and the readings, please respond in two parts addressing the following questions:

- How feasible it to introduce some of the various techniques discussed in Northern European cities to the US? What are some of the hindrances?
- Do you feel that differences between European and US cities in terms of sustainable development is primarily the result of cultural or political differences? How, if at all, can they be overcome?

### **Thursday, October 1 (ACSP Conference): Transportation and sustainable development within a local context.**

#### Readings:

The Sustainable Urban Development Reader, Cervero: "Transit and the metropolis: Finding Harmony, p.115

The Sustainable Urban Development Reader Newman and Kenworthy: "Traffic calming", p.123

The Sustainable Urban Development Reader, Pucher, Komanoff, and Shimek, "Bicycling renaissance in North America?" p.130

In class: Presentation by Rob Morache, architect and Connect Ithaca coordinator on sustainable transportation futures in Ithaca, followed by small group discussion:

Assignment #4 due: Go to

<http://www.travelmatters.org/calculator/individual/?sid=dc84b63cdb47f2e1173fbc74ca7b7355>

- Calculate your transport related emissions (you will have to estimate over the entire month) What is your primary mode of transportation?
- Now calculate the same for either the Winter holidays or summer (or whenever you are at home for a month). In which environment is your emissions count lower? Why do you think this is? (For example, does it have to do with your transportation mode, the built environment, or both?)

**Tuesday, October 6:** Debate: Public transit vs. more efficient automobile. One of the current debates in sustainable planning and development involve whether or not society's emphasis should focus on prioritizing more fuel efficient cars or instead, investing in mass transit and enhancing bike and pedestrian as alternative modes of transportation. Each side should come prepared with an outline of their arguments and counterarguments to distribute to the class. The debate will be followed by a Q and A session.

Readings posted to Blackboard **Note:** These are only meant to be a guide. Feel free to do your own research in addition.

### **Thursday, October 8: Sustainability and the Built Environment:**

Readings:

Blackboard: Pedestrian and transit friendly design: A primer for Smart Growth

Blackboard: Best Development Practices: A primer for Smart Growth

Blackboard (for review): Collegetown Urban Plan and design guidelines

Blackboard (for review): Collegetown vision statement

The Sustainable Urban Development Reader, Calthorpe: “The Next American Metropolis,” p. 87

The Sustainable Urban Development Reader Gehl: “Outdoor spaces and outdoor activities” p.99

The Sustainable Urban Development Reader, Wheeler “Infill Development” p.104

Assignment #5: Using “Pedestrian and transit friendly design: A primer for Smart Growth” as a guide, rate the pedestrian friendliness of a College town. Note: obviously, not all of the characteristics discussed will be applicable!

In class: small group mini-design charette for College town. The Charette should address both the weaknesses and strengths of the College town area (as defined by the College town Vision Statement – on Blackboard)) Areas to be addressed can include: transportation, future growth, mixed use, parking, streetscape/public space, infill development, landscaping. Groups will present their plans at end of class. Other resources include the “Collegetown Urban Plan and Design Guidelines” (on Blackboard)

**Tuesday, October 13:** No class Fall Break

**Thursday, October 15: Green buildings and sustainable housing**

Readings:

The Sustainable Urban Development Reader, McDonough: “Design, Ecology, ethics, and the making of things”p.255

The Sustainable Urban Development Reader, Vale and Vale: “Principles of Green Architecture,” p.262

The Sustainable Urban Development Reader, Eisenberg and Yost “Sustainability and Building Codes,” p.267

The Sustainable Urban Development Reader, US Green Building Council: “The LEED Green Building rating system” p.273

Class: Guest speaker: Kevin Pratt, AIA, Assistant Professor, Department of Architecture

In class discussion: What are some of the issues involved with implementing green building codes? What are some of the strengths/weaknesses of LEED standards? How could it be improved? What is missing?

**Tuesday, October 20: Sustainability and water use**

Readings:

Sin Aqua non, The Economist, April 8, 2009:

[http://www.economist.com/world/international/displayStory.cfm?STORY\\_ID=13447271](http://www.economist.com/world/international/displayStory.cfm?STORY_ID=13447271)

Other Readings TBA

Class: Interactive lecture presentation on water use and urbanization

Start Film: “Cadillac Desert: Mulhollands Dream”

### **Thursday, October 22: Sustainability and water use**

Film: “Cadillac Desert: Mulhollands Dream” followed by in class discussion and short response paper

Reading:

Blackboard, “Cadillac Desert”, Intro and Chapter 2

### **Tuesday, October 27: Cities and sustainable Energy**

Reading:

Blackboard: Francis Vanek and Louis Vogel, "Clean energy for green buildings: an overview of on- and off-site alternatives. Journal of Green Building, Vol.2, Num.1, pp. 22-36, 2007.

The Sustainable Urban Development Reader, Pacala and Socolow: “Stabilizing Wedges: Solving the climate problem for the next 50 years with current technologies, p.173

Class: Guest speaker: Francis Vanek, Cornell Engineering Professor

**Thursday, October 29: The Energy Policy Debate:** In order to realistically reduce achieve energy sustainability, should society try to make conventional energy sources (fossil fuels) cleaner or rather make investing in renewables a priority? Each side should come prepared with an outline of their arguments and counterarguments to distribute to the class. The debate will be followed by a Q and A session. In addition, we will briefly introduction to role playing simulation.

Readings posted to Blackboard

### **Tuesday, November 3: Environmental Justice role playing simulation**

Readings:

The Sustainable Urban Development Reader, Bullard “People-of-Color Environmentalism,” p.183

The Sustainable Urban Development Reader, Perlman and Sheehan “Fighting poverty and environmental injustice in cities”, p.197

Blackboard: Bullard, R. (1994) Overcoming Racism in Environmental Decision-making, *Environment*, vol.36(4), pp.10-20, 39-44 and commentary in response to Bullard’s article: *Environment* (1994) vol.36(8), pp2-4

**Beyond Eco-Apartheid: Is the Green Movement Too White?** Van Jones in Common Ground. <http://commongroundmag.com/2007/04/eco-apartheid0704.html>

In class: Role playing simulation: Siting an Asphalt Plant in the City of Madrona: Six-party, multi-issue negotiation among community representatives, elected leaders, environmental and health experts, and asphalt company regarding siting of an asphalt plant in a racially mixed neighborhood

### **Thursday, November 5 : Creating a sustainable local economy**

#### Readings

The Sustainable Urban Development Reader, Shuman: “Import Replacement”p.233

The Sustainable Urban Development Reader, Roseland and Soots “Strengthening local economies”, p.241

Blackboard: Van Jones: *The Green Collar Economy*, Chaps 6, 7

Guest speaker: Gay Nicholson, Sustainable Tompkins

Assignment #6 due: Write a brief response to and evaluation of the role-playing simulation:

- Which parts of the negotiation were successful? Which were not?
- Did you feel your character was believable (or how much did you have to fake it?)

### **Tuesday, November 10: Sustainable local food systems**

#### Readings:

Blackboard: Selected readings from *Planning Magazine*, Special Issue: The Food factor August/September 2009

Blackboard: Vitiello, D. (2009) “Growing Edible Cities” from *Growing Greener Cities: Urban sustainability in the 21<sup>st</sup> century*, Birch, E. and Wachter, S (eds)

**Guest speaker:** Liz Karabinakis, Cornell Cooperative Extension

**Thursday, November 12: The Local vs. Global Economy Debate.** Should economies and food systems be as local as possible, or does globalization bring social, economic, and

environmental benefits as well? Each side should come prepared with an outline of their arguments and counterarguments to distribute to the class. The debate will be followed by a Q and A session.

Readings posted to Blackboard

**Tuesday, November 17: Urban environmental issues in the developing world**

Readings

The Sustainable Urban Development Reader: “Urban Planning in Curitiba”, p.319

Online: Poverty and Globalization: Vandana Shiva

[http://news.bbc.co.uk/1/hi/english/static/events/reith\\_2000/lecture5.stm](http://news.bbc.co.uk/1/hi/english/static/events/reith_2000/lecture5.stm)

Online: Tierney, J. Use Energy, Get rich and save the planet, April 20, 2009

<http://www.nytimes.com/2009/04/21/science/earth/21tier.html?scp=1&sq=Use%20energy,%20get%20rich%20and%20save%20the%20planet&st=cse>

Class: Lecture presentation

*Assignment #7:* How self reliant is Ithaca’s economy? Considering the readings and presentations, briefly examine a number of ways in which Ithaca has tried to become more economically self sustaining, and a number of ways in which it hasn’t?

**Thursday, November 19:** Student presentations

**Tuesday, November 24:** Student presentations

Assignment #8 due: Write a 1 - 2 page reflection piece that addresses one of the following: 1) Pick a couple core topic areas we addressed in class this semester and discuss how your view or perception on this issue has changed or been impacted. 2) Discuss and follow up with your eco-footprint analysis: Has it changed at all based on the personal lifestyle choices you made over the course of the semester?

**November 26:** Thanksgiving. No class.

**Tuesday, December 1:** Student presentations

**Thursday, December 3:** Student presentations

Please submit electronic version of final project to Blackboard (via the Assignments link) by 5 pm December 3!!!