

COURSE DESCRIPTION

Green Urban Design combines a lecture course with an urban design group project. Readings, lectures and discussions focus on sustainable urbanism: why and how to design living environments that are attractive and enjoyable, scaled to their context, and well programmed in their uses and activities, while reducing the energy it takes to build and operate them. The key to producing good urban design that is also green is to increase sustainability through density, integrate transportation and land use planning, optimize infrastructure, and create walkable, mixed-use and economically diverse neighborhoods.

The course applies design principles to real sites, with the objective of creating a sense of place. Students are given a group project at the scale of an urban neighborhood. Design topics explored through the projects include housing, office, retail, civic uses, streetscape elements, open spaces, circulation and parking; and how to assemble these elements into low-impact mixed-use developments. Students apply to their projects the LEED for Neighborhood Development criteria as one measure of sustainability.

Readings

Readings are posted on the course's Trunk site and are selected from some of the following books:

Barnett, Jonathan. *City Design: Modernist, Traditional, Green and Systems Perspectives*. Routledge, 2011.
Beatley, Timothy. *Biophilic Cities: Integrating Nature into Urban Design and Planning*. Island Press, 2011.

Crawford, J. H. *Carfree Design Manual*. J. H. Utrecht: International Books, 2009.

Farr, Douglas. *Sustainable Urbanism: Urban Design with Nature*. John Wiley & Sons, 2008.

Flint, Anthony. *This Land: The Battle Over Sprawl and the Future of America*. John Hopkins University Press, 2006.

Hass, Tigran (ed). *New Urbanism and Beyond. Designing Cities for the Future*. Rizzoli, 2008.

Larice, Michael and Elizabeth MacDonald (eds). *The Urban Design Reader*. Routledge, 2013.

Owen, David. *Green Metropolis: Why Living Smaller, Living Closer, and Driving Less are the Keys to Sustainability*. Penguin Press, 2009.

Parolek, Daniel, Karen Parolek and Paul Crawford. *Form-Based Codes. A Guide for Planners, Urban Designers, Municipalities, and Developers*. John Wiley & Sons, 2008.

Register, Richard. *Ecocities. Rebuilding Cities in Balance with Nature*. New Society Publishers, 2006.

Reference resources

Rider, Traci Rose. *Understanding Green Building Guidelines*. Norton & Company, 2009.

Steiner, Frederick and Kent Butler (eds). *Planning and Urban Design Standards*. John Wiley & Sons, 2007.

Yeang, Ken and Lillian Woo (eds). *Dictionary of EcoDesign*. Routledge, 2010.

Yudelson, Jerry. *Green Building A to Z: Understanding the Language of Green Building*. New Society Publishers, 2007.

Requirements

Students are required to keep abreast of the readings, write two individual papers, attend two field trips outside of class time, and complete and present an urban design project in teams of 3 to 4 students

Office hours

Office hours can be scheduled for group or individual meetings at 72 Professors' Row, room 204.

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UEP 264 GREEN URBAN DESIGN – SCHEDULE

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| 1 | Jan 15 | Introduction: course overview Brief History of American Urban Planning and Design | |
| | Jan 22 | no class (Monday's schedule substituted on Wednesday for Presidents' Day) | |
| 2 | Jan 29 | LEED for Neighborhood Development Principles of Sustainable Design | Paper #1 assigned |
| 3 | Feb 5 | Group Project Sites – Brad Rawson Principles of Sustainable Design (cont'd) | Group projects presented/assigned Issues Map assigned |
| 4 | Feb 12 | Euclidean Zoning, Form-Based Codes, Somerville Zoning SketchUp tutorial | Paper #1 due |
| 5 | Feb 19 | Student presentations of Issues Maps SketchUp touchup and group project work | |
| 6 | Feb 26 | Dimensions of Density and Scale Group project work | Comments on Paper #1 given Paper #2 assigned |
| 7 | week of March 3, day/time t.b.d. | Field trip to Genzyme, Kendall Square, Cambridge | |
| 8 | March 5 | Design Process, Building Types, Program of Uses Group project work | |
| 9 | March 12 | Green Building and Landscaping Elements Group project work | Paper #2 due |
| | March 19 | Spring Recess – no classes | |
| 10 | March 26 | Public Realm: Streets, Parks, Civic Spaces Group project work | Comments on Paper #2 given |
| 11 | Fri, March 27 | 4 am – 5 pm, t.b.c. Field trip to Artists for Humanity, South Boston | |
| 12 | April 2 | Neighborhood Planning and Commercial Development Group project work | |
| 13 | April 9 | Transportation Planning and Land Use Patterns Group project work | |
| 14 | April 16 | Eco-Cities, Peak Oil, Climate Change Group project work | |

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| 15 | April 23 | Guest lecture: Linda Jonash – Rose Kennedy Greenway | Draft reports due |
| 16 | April 30 | Project presentations | |
| 17 | Thurs, May 1 st | Project presentations | Comments on draft reports given |
| | May 9 | Final reports due (no class meeting) | Final reports due |

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| 1 | Jan 15 | Introduction | |
| | | Course overview Brief History of American Urban Planning and Design | |
| 2 | Jan 29 | LEED for Neighborhood Development and Principles of Sustainable Design | Paper #1 assigned |
| | | www.usgbc.org/leed/nd/ <i>Sustainable Urbanism:</i> Chapter 1 The Built Environment: Where We Are Today? <i>starting with</i> The American Lifestyle on the Wrong Course, pp.19-37 <i>The Urban Design Reader:</i> Oliver Gillham “What Is Sprawl?” pp. 287-307 The Congress for New Urbanism (CNU) “Charter of the New Urbanism” pp. 308-311 | |
| 3 | Feb 5 | Group Project Sites | Group projects presented/assigned |
| | | Brad Rawson, Planner, City of Somerville Mayor’s Office of Strategic Planning and Economic Development Principles of Sustainable Design (cont’d) <i>Sustainable Urbanism:</i> Chapter 2: Sustainable Urbanism: Where We Need to Go. <i>starting with</i> Sustainable Urbanism: The Grand Unification, pp. 41-65 | Issues Map assigned |
| 4 | Feb 12 | Euclidean Zoning, Form-Based Codes, Somerville Zoning | Paper #1 due Paper #2 assigned |
| | | <i>The Urban Design Reader:</i> Ebenezer Howard “Author’s Introduction” and “The Town-Country Magnet”, pp. 53-61 <i>Form-Based Codes:</i> Elizabeth Plater-Zyberk “An Optimistic Moment” pp. ix-xii Stefanos Polyzoides “The Time is Now” pp. xiii-xviii Ch 1 Introduction: Why Form-Based Codes? Pp.3-5 SketchUp tutorial | |

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| 5 | Feb 19 | Student Presentations of Issues Maps | |
| | | SketchUp touchup and group project work | |
| 6 | Feb 26 | Dimensions of Density and Scale | Comments on Paper #1 given Paper #2 assigned |
| | | <i>Sustainable Urbanism:</i> Chapter 5: Sustainable Urbanism – <i>starting with</i> Explaining Density, pp. 103-111 <i>This Land.</i> Anthony Flint. Chapter 9: The Density Dilemma, pp. 191-208 <i>The Urban Design Reader:</i> Eduardo Lozano “Density in Communities, or the Most Important Factor in Building Urbanity” pp. 312-327 Hildebrand Frey “Compact, Decentralized, or What? The Sustainable City Debate” pp. 328-343 | |
| 7 | week of March 3, day/time t.b.d. | | |
| | | Field trip to Genzyme, Kendall Square, Cambridge | |
| 8 | March 5 | Design Process, Building Types, Program of Uses | |
| 9 | March 12 | Green Building and Landscaping Elements | Paper #2 due |
| | March 19 | (Spring Recess – no classes) | |
| 10 | March 26 | Public Realm: Streets, Parks, Civic Spaces | Comments on Paper #2 given |
| | | <i>Form-Based Codes:</i> Public Space Standards, pp. 28-38 <i>The Urban Design Reader:</i> William Whyte “Introduction,” “The Life of Plazas,” “Sitting Space,” and “Sun, Wind, Trees, and Water” pp. 348-363 Allan Jacobs “Conclusion: Great Streets and City Planning” pp. 387-390 | |
| 11 | Fri, March 27, 4 pm – 5 pm, t.b.c. | | |
| | | Field Trip to Artists for Humanity, Broadway Station, South Boston (4 pm – 5pm) | |
| 12 | April 2 | Neighborhood Planning and Commercial Development | |

Sustainable Urbanism:

Chapter 7 Sustainable Neighborhoods, pp. 125-167 and pp. 179-181

New Urbanism and Beyond:

Robert Gibbs "Urban Retail Planning Principles for Traditional Neighborhoods", pp. 158-162

13 April 9 **Transportation Planning and Land Use Patterns**

Todd Litman (2013) *The Future Isn't What It Used to Be: Changing Trends And Their Implications For Transport Planning*. Victoria Transport Policy Institute.

New Urbanism and Beyond:

Peter Calthorpe "The Urban Network", pp. 67-69

Robert Cervero "Transit-Oriented Development in America", pp.124-129

14 April 16 **Eco-Cities, Peak Oil and Climate Change**

EcoCities:

Preface to the Second Edition, xix-xxv, and Introduction, pp. 1-4

Chapter 1 As We Build, So Shall We Live, pp. 5-23

Chapter 2 The City in Evolution, pp. 25-45

Other readings t.b.d.

15 April 23 **Guest Lecture: Linda Jonash, Rose Kennedy Greenway**

Draft reports due

16 April 29 **Project Presentations**

17 Thurs, May 1st **Project Presentations**

Comments on draft reports given

May 9 Final reports due (no class meeting)

Final reports due