

## **Green Urbanism**

### **The Building Blocks for Creating Sustainable Places**

*University of California at Los Angeles*  
*Walker Wells, AICP LEED AP*

#### **Course Overview**

Cities are the earth's fastest growing ecology, thus making the creation of sustainable urban systems one of the 21<sup>st</sup> Century's most crucial challenges. In response to this challenge, architects, engineers, planners, ecologists, policy makers, and an informed citizenry must reassess traditional notions about the interrelationship between the built and natural environments. And because of their concentrated resource use, cities provide unique opportunities for creative interventions that sustain social, cultural, and economic richness, while protecting – and even enhancing – the vitality of local, regional, and global natural systems.

Green urbanism is the practice of creating communities beneficial to humans and the environment. Applied, green urbanism focuses on identifying small-to-medium scale catalytic interventions that can be implemented in urbanized locations to connect people with natural processes, which, in aggregate, can lead to an overall shift towards sustainable neighborhoods, districts, and regions.

The course is a survey of the sustainable design and planning tools that make up the green urbanist palette – including urban ecosystem analysis, biophilia and biomimicry, green building and the LEED rating system, infrastructure design strategies in the areas of energy, water, food, waste and transportation, and sustainable city plans, indicators, and governance.

Students are expected to apply various green urbanism concepts and conduct research on relevant topics through a series of assignments. The final project requires that the concepts, analytical tools, and design strategies be applied to specific locations through a team-generated proposal.

#### **Learning Objectives:**

Upon completion of the course students will:

- Understand how the principles of ecology and sustainability can be applied to an urban context.
- Understand the tools that are available to determine the sustainability of a neighborhood, city, or region.
- Be familiar with major green building strategies and rating systems.

- Be familiar with various facets of green infrastructure.
- Understand how to develop indicators to measure various environmental, social, and economic qualities of urban areas.
- Be able to synthesize the principles discussed in lectures into a proposal for a specific area of Los Angeles.

## **Course Calendar:**

### **Sustainable Cities – Defining Green Urbanism**

#### **Topics:**

The urban/natural relationship in history; The role of design in promoting sustainability.

- *The Hanover Principles*, William McDonough and Michael Braungart
- *Reinventing Los Angeles*, Robert Gottlieb
- Greenery (or Even Photos of Trees) Can Make Us Happier, Reynolds, LA Times, 2016

- ***Hand out Assignment #1***

### **Creating an Ecological Mindset**

#### **Topics:**

The urban/natural relationship in history; The role of design in promoting sustainability. Defining an urban ecosystem; Viewing urban areas from ecological perspective; Ecosystem based planning and design tools; Biophilia and biomimicry

#### **Readings:**

- *Urban Ecological Systems: Linking Terrestrial Ecological, Physical, and Socioeconomic Components of Metropolitan Areas*, S.T.A. Pickett et al, *Ann. Review Ecology and Systematics* 32 (Nov 2001, 127–57)
- *Along Came a Spider*, Benyus, 2001
- *14 Patterns of Biophyllic Design*, Terrapin, 2014

- ***Assignment #1 Due***
- ***Hand out Assignment #2***

### **Sustainable Building Design (Recorded Lecture)**

**Topics:** Why we create buildings; pre- and post-air conditioning design; integrated design process; LEED as a design tool and a market force; Living Building Challenge.

### Readings:

- *A Centennial Sermon: Design, Ecology and the Making of Things*, William McDonough (1993: The Cathedral of St. John The Divine
- *The End of the Long Hot Summer: The Air Conditioner and Southern Culture*, Raymond Arsenault, *The Journal of Southern History*, Vol. 50, No. 4 (Nov., 1984), pp. 597-628
- *Blueprint for Greening Affordable Housing, Chapter 2*, Wells, Vermeer (2020: Island Press)
- *Living Building Challenge 3.0*, Living Futures Institute

- **Assignment #2 Due**
- **Hand out Assignment #3**
- **Hand out Final Project**

## **Case Study Presentation and Green Infrastructure**

### Readings:

- *Toward an Inclusive Concept of Infrastructure*, William Wenk (from *Ecology and Design*)
- *Sustainable Urban Development Reader, The Metabolism of Cities* (pages 157-164)
- *A Tall Cool Drink of Sewage*, Royt, 2009
- *The Lloyd Crossing Sustainable Urban Design Plan and Catalyst*, Mithun Architects and Planners

- **Assignment #3 Due**

## **Neighborhood Planning and Urban Sustainability Indicators**

Topics: Developing effective sustainability indicators; Sustainable city and climate action plans; LEED for Cities

### Readings:

- *Density and Sustainability – A Radical Perspective*
- *Bellagio Principles for Developing Sustainability Indicators*
- *LEED for Cities and Communities Rating System*
- *Our County Sustainability Plan*

## **Final Project Presentations**

### Course Logistics

Assignments will consist of:

- **Weekly reading, lecture attendance, and participation in classroom discussion.** Required readings will be kept to a manageable level. These readings **MUST** be completed before class so that adequate discussion can take place.

- **Three interim assignments.** The assignments provide an opportunity to apply information from class and to conduct research on a specific green urbanism practice or project. The assignments are structured so that they build toward the final project. Specific requirements of the assignments will be distributed in class.
- **A final conceptual project.** Students will be required to synthesize the topics addressed in the class into a proposal for a specific location in the Los Angeles basin. Students will present their vision for how green urbanist principles and practices can be introduced in a compelling and innovative way, through mapping, diagrams, metaphors, and text. This project will be done in teams. Preparation for, and participation in, an interim review of the approach to the final project is required.

Grading will be as follows:

Attendance and Class Participation	10%
Assignment #1	15%
Assignment #2	15%
Assignment #3	20%
Final Project	40%

In lieu of office hours, the instructor is available to meet before class by appointment.