



2015

# Syllabus: Public Space Design Plus: Integrating Sustainable Design through Exploration and Research

Carolina Aragon  
*University of Massachusetts Amherst*

Follow this and additional works at: [https://scholarworks.umass.edu/sustainableumass\\_educationresources](https://scholarworks.umass.edu/sustainableumass_educationresources)

 Part of the [Construction Engineering Commons](#), [Environmental Design Commons](#), [Landscape Architecture Commons](#), and the [Urban, Community and Regional Planning Commons](#)



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 License](#).

Aragon, Carolina, "Syllabus: Public Space Design Plus: Integrating Sustainable Design through Exploration and Research" (2015). *Sustainability Education Resources*. 18.

Retrieved from [https://scholarworks.umass.edu/sustainableumass\\_educationresources/18](https://scholarworks.umass.edu/sustainableumass_educationresources/18)

This Article is brought to you for free and open access by the Sustainable UMass at ScholarWorks@UMass Amherst. It has been accepted for inclusion in Sustainability Education Resources by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).



University of Massachusetts  
Department of Landscape Architecture and Regional Planning

# PUBLIC SPACE DESIGN PLUS:

## Integrating sustainable design through exploration and research

LANDARCH 397B: STUDIO  
FALL 2015 SYLLABUS

Instructor: Carolina Aragón [caragon@larp.umass.edu]  
Office Hours: Monday and Friday 12:30-1:30pm. Location: Hills 201  
Class schedule: MWF 1:30 – 4:30 pm  
Class location: Junior studio, 3rd floor, Hills North

### INTRODUCTION:

This studio focuses on the integration of sustainable technologies into the design of a public space on campus. We will explore this integration at various scales: the human scale, the site scale, and the campus scale —while covering subjects like materiality, people's behavior, and innovative sustainable solutions for landscape applications. The work of the studio will be a combination of creative exploration and research supporting this exploration. The methodology will include experiential learning —learning by doing, research through direct observation, and research using library resources. Through research and use of library databases, students will gain a broader perspective of the context of sustainable design and generate design ideas based on knowledge obtained from case studies and research into new technologies and materials.

The work of this studio will be based on the UMass Amherst campus. We will use the campus as a source of resources and grounds for observation and experimentation. The first project will look at upcycling, through the innovative use of waste materials from the Campus' Waste Transfer Station to create seating prototypes. The second project will focus on observation of human behavior on outdoor public spaces across several campus sites. The final project will focus on the re-design of these sites to create engaging public spaces that incorporate some of the sustainability goals of the UMass Amherst Climate Action Plan (CAP). The final projects will be submitted as proposals for the Campus' Sustainability, Innovation and Engagement Fund for potential funding and implementation.

The studio will ask the question: how can public spaces be more than spaces for social gathering and actively integrate sustainability principles such as renewable energy production, air purification, food production, stormwater management, and behavior modification to create a greener campus?

### LEARNING OBJECTIVES:

- Understand human scale and human dimensions
- Gain understanding of the potential for upcycling and material investigations.
- Develop observation skills to record human behavior and existing site use and conditions.
- Understand role of human behavior in the design of public spaces.
- Incorporate research of sustainable technologies into the design process.
- Incorporate systems thinking into the research and design related to public space.
- Use digital media skills to communicate design and research findings.
- Generate innovative, site-specific design proposals based on observation and research.

## COURSEWORK:

The coursework for this studio will be divided into three projects. Each project will include a DESIGN and a RESEARCH component. Detailed information about each project will be given in separate handouts. ALL PROJECTS MUST BE DIGITALLY DOCUMENTED AND SUBMITTED IN ORDER TO BE GRADED.

- 1. CHAIR PROTOTYPE [material investigation + human scale]:** – This project will require students to design and build a full-scale prototype for outdoor seating in a public space using waste materials from the university's Waste Transfer Station. The design will be based on the understanding of human scale and comfort and the creative use of materials and assembly techniques. The research component will include information regarding the characteristics of the material, and how it relates to issues of sustainability at the campus or local scale. Documentation of this project will include general information of the material, infographics describing the context, along with diagrams, section drawings and photomontages.
- 2. HUMAN BEHAVIOR DOCUMENTARY [people + sites]** – This exercise is an introduction to the field of environmental design research and will focus on observing how people use campus public spaces, particularly as related to sitting and comfortable spaces for gathering. Through the use of diagrams, photography, and/or film, students will create a short documentary highlighting existing use and physical conditions of a site and identification of ways in which the site can be improved based on observation and environmental design research.
- 3. SUSTAINABLE PUBLIC SPACE for campus** – Each student will develop a landscape design proposal for a site of their choice based on their observations. The design will be inspired by the material qualities of the chair, the insight gained from the observation of human behavior on site, and additional research into innovative sustainable solutions that can be applied to campus. The design proposals must incorporate some of the sustainability goals of the UMass Amherst Climate Action Plan (CAP), while creating engaging public spaces on campus.

Each of the three projects requires completion of various preliminary assignments and production of final products. Students will be notified of the due dates for preliminary assignments for each project. Final project products are due as follows:

<b>Project 1:</b> CONSTRUCTING a chair	Full-size chair prototype Posters including assembly diagrams, material information, infographics.	<b>DUE: MONDAY, November 2<sup>nd</sup></b>
<b>Project 2:</b> <b>HUMAN BEHAVIOR DOCUMENTARY</b>	Documentary film (one film for each pair of students), site diagrams, human behavior diagrams	<b>DUE: MONDAY, NOVEMBER 16th</b>
<b>Project 3:</b> <b>SUSTAINABLE PUBLIC SPACE for Campus</b>	Site sections, plans & perspectives (Individual student work)	<b>DUE: MONDAY, DECEMBER 9<sup>TH</sup></b>

Please note that schedule is subject to change.

ALL WORK MUST BE SUBMITTED DIGITALLY. STUDENTS WILL NOT RECEIVE CREDIT FOR WORK UNTIL COMPLETE DIGITAL DOCUMENTATION HAS BEEN SUBMITTED.

## EVALUATION CRITERIA:

Students will be evaluated on the following criteria:

- **Creativity:** Ability to problem solve, and to generate unique ideas in the design process.
- **Communication:** Development of graphic communication skills through diagramming, traditional drawings, modeling and photo-montages; and your ability to present your ideas verbally, in writing and in video.
- **Research:** Ability to use library resources and databases to perform quality research that supports your projects.
- **Improvement:** Effort shown in all assignments including degree of improvement and your ability to positively respond to feedback.
- **Leadership:** The initiative to challenge yourself and the class by taking risks in the design process.

- **Professionalism:** Attendance, being prepared for class beyond the minimum requirements, and completion of all work and assignments on schedule.

**GRADING:**

Project 1: CHAIR PROTOTYPE	25%
Project 2: HUMAN BEHAVIOR DOCUMENTARY	25%
Project 3: SUSTAINABLE PUBLIC SPACE	25%
QUIZES:	15%
FINAL PRESENTATION / STUDIO SUPPORT:	10%

**GRADING SCALE:**

A	Excellent – The work <b>exceeds the requirements</b> of the course and demonstrates complete understanding of course goals.
B	Good – The work <b>meets the requirements</b> of the course and demonstrates understanding of course goals.
C	Fair – The work <b>meets the minimum requirements</b> of the course and reflects understanding of some course goals but shows lack of attention to detail and clarity.
D	Poor – The work <b>barely meets the minimum requirements</b> of the class. Assignments lack depth and display a minimal understanding of course goals.
F	Unacceptable or missing work – The work <b>neither satisfies the requirements of the class nor demonstrates understanding of course objectives. Student has accumulated (3) unexcused absences.</b>

LATE WORK:

No late assignments will be accepted without a valid excuse. Valid excuses include illness, medical emergencies, and family emergencies. The instructors MAY allow late work to be submitted without penalty IF the student notifies her/him in advance of the due date with a valid reason and receives permission.

### **THE RESPECTFUL LEARNING ENVIRONMENT:**

We are all responsible for maintaining a classroom environment that is conducive to learning and discussion. In order to assure that we all have the opportunity to gain from time spent in class, the following standards are important for creating a respectful learning environment.

- The instructor, teaching assistants, and students notice and respect each other.
- Respect includes appropriate humor, enjoyment, or other indications of a comfortable and pleasant classroom community.
- Everyone is on time for class: no late arrivals and no packing up early.
- Disruptions are avoided during class such as private conversations, reading newspapers, speaking on cell phones, using a laptop for something other than current classroom work, and, of course, sleeping.
- Negative language is avoided - language that is considered racist, sexist, or homophobic or in other ways may exclude members of our campus and classroom community.

### **ATTENDANCE:**

**More than 2 unexcused absences may result in a failing grade.** Attending classes is a basic responsibility of every student who is enrolled in courses. A student may miss one class session without directly affecting the student's grade and ability to complete the course. If additional absences are required for a personal illness/family emergency, pre-approved academic reason/religious observance, the need for absence should be discussed with and approved by the instructor. This should, if at all possible, occur before the absence or as soon as possible thereafter.

Any student not in class within the first 10 minutes is considered tardy, and any student absent (in any form including sleep, technological distraction, or by leaving mid class for a long break) for more than 1/3 of the class time can be considered fully absent. It is always the student's responsibility to seek means (if possible) to make up work missed due to absences. An unexcused absence on the day a project, quiz, paper or exam is due or presentations are scheduled can lead to an "F" for that project, quiz, paper or exam or portfolio. If students are absent or late on a presentation day, and miss their opportunity to present, it is considered as a failing grade for that project.

### **ACCOMMODATION POLICY:**

The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), Learning Disabilities Support Services (LDSS), or Psychological Disabilities Services (PDS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that we may make appropriate arrangements.

### **ACADEMIC HONESTY**

It is expected that all graduate students will abide by the Graduate Student Honor Code and the Academic Honesty Policy (available at the Graduate Dean's Office, the Academic Honesty Office (Ombud's Office) or online at [http://www.umass.edu/gradschool/handbook/univ\\_policies\\_regulations\\_a.htm](http://www.umass.edu/gradschool/handbook/univ_policies_regulations_a.htm)). Sanctions for acts of dishonesty range from receiving a grade of F on the paper/exam/assignment or in the course, loss of funding, being placed on probation or suspension for a period of time, or being dismissed from the University. All students have the right of appeal through the Academic Honesty Board.

### **READING LIST & RESOURCES**

ABOUT FURNITURE DESIGN:

Main, Bill, and Gail Greet Hannah. Site furnishings a complete guide to the planning, selection and use of landscape furniture and amenities, 2010.

Tilley, Alvin, and Henry Dreyfuss Associates. The Measure of Man and Woman, Revised edition, 2002.

#### ABOUT DESIGN & ENVIRONMENTAL DESIGN RESEARCH:

Gehl, Jan, Life Between Buildings: Using Public Space, 2006

Gehl, Jan. Cities for People, 2010

Gehl, Jan, and Birgitte Svarre. How to Study Public Life, 2013

Hopper, Leonard J., and Smith Maran Architects, Landscape Architectural Graphic Standards, 2007

Kaplan, Rachel, and Stephen Kaplan, Humanscape: Environments for People, 1982.

Kaplan, Rachel, Stephen Kaplan, and Robert Ryan, With People in Mind: Design and Management of Everyday Nature, 1998.

Marcus, Clare Cooper, and Carolyn Francis, People Places: Design Guidelines for Urban Open Space, 1998

Whyte, William Hollingsworth, The Social Life of Small Urban Spaces, 1980

#### ABOUT REPRESENTATION:

Amoroso, Nadia, editor, Representing Landscapes: A Visual Collection of Landscape Architectural Drawings.

Cantrell, Bradley. Digital Drawing for Landscape Architecture. 2010.

Entwistle, Trudi and Edwin Knighton, Basics Landscape Architecture 03: Visual Communication for Landscape Architecture.

Hutchinson, Edward. Drawing for Landscape Architecture. 2011

Pyo, Mi Young, and Seonwook Kim. Architectural and program diagrams, 2012. ON RESERVE IN W.E.B. DUBOIS LIBRARY

Seonwook, Kim. Construction and Design Manual: Architectural and Program Diagrams 1. 2012

Steenberger, Clemens. Composing Landscapes. 2008

#### WEB RESOURCES

Project for Public Spaces

<http://www.pps.org/>

#### Environmental Design Research

William H. Whyte: The Social Life of Small Urban Spaces - The Street Corner

<https://archive.org/details/SmallUrbanSpaces>

Gary Hustwit: Urbanized, 2011

<http://search.itunes.apple.com/WebObjects/MZContentLink.woa/wa/link?path=Movies%2furbanized>