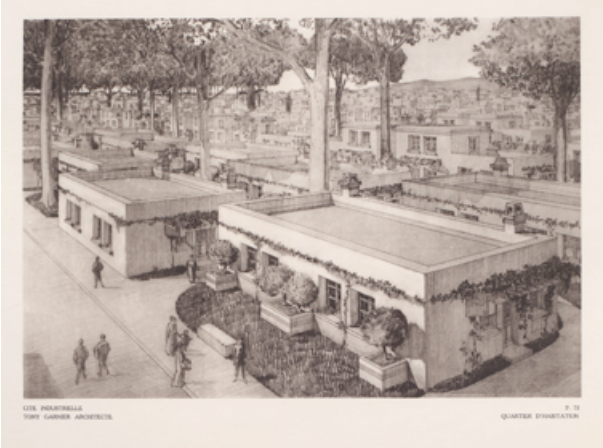
THE SUSTAINABLE CITY STUDIO

Course	Architecture Terminal Studio
Term	Fall 2009/Winter 2010
Instructors	Mark L. Gillem, PhD, AIA, AICP
Credits	6
Time	Wednesday/Friday 1:00-5:50 pm



Course Objectives. In 1918 Tony Garnier developed a grand concept for a new city. His award-winning *Une Cité Industrielle* detailed his thinking for this new city. His proposals brought urbanism to undeveloped theoretical landscapes. They included places to live, work, play, shop, and learn. But Garnier's visionary landscapes never materialized, due in part to his overly proscriptive plan and his isolated design process. However, his zoning ideas inspired later generations of designers to adopt isolated land uses as a key feature of city design. Arguably, the end result of this thinking, perhaps best described in Joel Garreau's *Edge Cities,* is the low-density, auto-dependent landscapes so prevalent at the edges of American cities. In this terminal studio, students will explore new and more sustainable ways to build at the edge – the location of a significant portion of development in the United States. How should land at the metropolitan perimeter be developed? What roles do large institutions play in land development and building design? How can designers influence these development patterns so that more sustainable urban design and building patterns become commonplace? To address these questions, this two-term studio will focus on three primary subjects:

- the engagement of communities in a *participatory design* process in order to shape more democratic goals and principles that can guide future development;
- the creation of flexible *urban codes* designed to foster location specific sustainable development; and
- the design of *green buildings* that demonstrate how architecture can support relevant urban codes.

Course Assignments. Students will use knowledge gained in previous studios involving design process, urban design, site planning, and detailed building design. The first term is comprised of 1) overall site analysis; 2) the preparation of a design vision supported by community-generated goals and principles; 3) the layout of sustainable landscapes to include multi-modal transportation planning, land-use planning, and parks and open space design; and 4) the creation of a form-based code with illustrative plans, regulating plans, building envelope standards, and street standards. The second term is comprised of site analysis and individual building design. In consultation with the instructor, students will be able to select a building type of their choice and prepare a detailed design proposal that conforms to the urban code for the site prepared in the fall.

Our studio will have two case studies to implement this theory through design. One team of students will work with faculty, staff, and students at Lane Community College (LCC) to develop a new Perimeter Master Plan for a 314-acre parcel at the edge of the Eugene-Springfield metropolitan area. Given that community colleges across the United States control significant tracts of underdeveloped land at the urban edge, reconsidering their role in the changing urban landscape is a new frontier for the design profession. Students will consider how LCC can be transformed into a learning and living campus that can better support students, faculty, and staff while reducing regional environmental impacts and improving the college's ability to support itself over the long run. Another team of students will work with city staff, property-owners, and citizens of the City of Damascus to develop a Town Center Master Plan for a large undeveloped parcel at Portland's metropolitan edge. Students will consider how greenfield development, which is required by Metro's growth plans, can contribute to a *Sustainable City* rather than an *Edge City*.

For each site, students will work in teams during the fall to develop the urban design plans and codes and then students will work individually in the winter to develop specific building designs. In order to quantify the benefits to their designs, students will forecast the impacts of their designs in terms of farmland preservation, reduction of vehicle miles traveled and carbon dioxide emissions, and per household savings. Students will also analyze their proposals using LEED-ND and LEED-NC criteria.

Course Structure. Instruction will include regular class discussions, small group reviews, and desk crits. Students will also be expected to prepare reading responses to guide discussions. Required texts are Joel Garreau's *Edge Cities,* Jonathan Levine's *Zoned Out,* Dan Parolek's *Form-Based Codes,* Daniel William's *Sustainable Design,* and Douglas Farr's *Sustainable Urbanism*. We will also conduct field research of relevant development in the region (tentatively set for October 7-12). Class sessions will be generally be Wednesdays and Fridays from 1:00-5:50. Mondays are reserved for student work days. This terminal studio has received generous funding from Lane Community College (LCC) and the City of Damascus. This funding will underwrite some studio production expenses, travel costs, and other associated expenses.