

## Architecture 635 Landscape Construction Assembly and Documentation Fall 2016

Class Location: Harris 115a

Instructor: Esther Margulies ASLA

3 units Tuesdays and Thursdays 8:30 to 9:50 am

Office hours: Tuesdays at 10 am or By Appt.

### **Contact Information:**

Email: [emarguli@usc.edu](mailto:emarguli@usc.edu)

This course builds an understanding of landscape materials and assemblies, construction documents and sequencing. Students will learn the content and organization of construction documents and specifications. Lectures, site visits and field trips will provide opportunities for students to observe multiple approaches to the use of site materials. Students will learn the basic vocabulary of site construction documentation and detailing and how to modify and adapt details for specific site conditions.

The semester will begin with an introduction to construction documentation drawings and specifications. Subsequent sessions will include lectures describing the qualities, characteristics and uses of typical site construction materials and systems. In weekly assignments students will draw construction details derived from a specific site, ultimately completing a site construction document package for that site.

The final project will be a construction document package for a selected significant landscape space on or adjacent to the USC University Park campus. The package will include construction details drawn over the course of the semester and submitted as weekly assignments.

All assignments will be turned in via Blackboard. The final project will be due on or before the final exam date for this class.

Readings and class announcements will be distributed via blackboard.

The syllabus may be updated periodically throughout the semester.

## Course Grading

Construction Detail Assignments 65%

Final Construction Drawing Set 25%

Class Attendance and Participation 10%

## Class Attendance and Additional Work Requirements

Attendance at all class meetings and field trips are mandatory. Students must notify the instructor and request to be excused prior to the class meeting time. Students are expected to spend a minimum of 2 hours of additional work time each week outside of class time to complete readings and assignments.

Specific content and presentation requirements for all assignments and reviews will be provided.

## Required Skills:

This course will require hand drawing, CAD drafting and illustrations.

## Software

MS Office or equal, Adobe Creative Suite, CADD

## Required Materials

Hand sketching materials – pencils, eraser, markers, colored pencils, water color paints etc

Final Project large scale construction drawing plots

## Class Schedule

Date	Lecture Topics and Frameworks	Readings and Assignments
Tues Aug 23	<ol style="list-style-type: none"><li>Class Introduction<ol style="list-style-type: none"><li>Syllabus review</li><li>Expectations</li><li>Academic Integrity</li></ol></li><li>Construction Documents<ol style="list-style-type: none"><li>Plans, Details, Specifications</li></ol></li></ol>	Reading -Construction document set standards and strategies Hopper p. 4 - 10
Thurs Aug 25	<b>Lecture Base and Layout Plans</b> – Drawing conventions, symbols, notes and strategies Site Selection for Semester – visit sites	<b>Assignment 1 – Base and Layout Plan for selected site</b>

Tues Aug 30	<b>Lecture : Cast in Place Concrete Paving, Curbs and Stairs</b> – Properties, Qualities, Considerations	<b>Reading</b> Hopper p. 266 – 284 Yglesias p. 5 - 21
Thurs Sept 1	<b>CIP Conc Paving Documentation Methods:</b> Plan, detail and specification conventions and standards	<b>Assignment 2</b> – Selected Site Cast in place concrete paving, curb and stair details selected site
Tues Sept 6	<b>Lecture: Natural Stone</b> Properties, Qualities, Considerations	<b>Reading</b> – Yglesias p. 101 - 114
Thurs Sept 8	<b>Natural Stone Documentation Methods:</b> Plan, detail and specification conventions and standards	<b>Assignment 3</b> – Natural stone paving details selected site
Tues Sept 13	<b>Lecture: Masonry and Stairs</b> – Properties, Qualities, Considerations	<b>Reading – Masonry</b> Hooper P. 261 – 265 , 506 - 511
Thurs Sept 15	<b>Pre Cast Masonry Documentation Methods:</b> Plan, detail and specification conventions and standards	<b>Assignment 4</b> – Precast unit masonry paving details selected site
Tues Sept 20	<b>Lecture: Walls</b> – Structural materials, finish treatments, soil mechanics, sub drainage design considerations	<b>Reading – Walls</b> Hopper p. 172-184, 285 - 303
Thurs Sept 22	<b>NO CLASS LAN CONFERENCE</b>	
Tues Sept 27	<b>Walls Documentation Methods:</b> Plan, detail and specification conventions and standards.	<b>Assignment 5</b> – Selected Site Wall details, enlarged plans and coordination
Thurs Sept. 29	<b>Field Trip Observation Site Construction 1</b>	<b>Assignment 6</b> – Site visit sketches
Tues Oct 4th	<b>Lecture: Metals</b> –Structural and decorative. Properties, finishes, Assemblies	<b>Reading – Metals</b> <b>Hopper p. 304 – 322, 512 – 523</b> <b>Yglesias p. 34 - 48</b>
Thurs Oct 6th	<b>Metalwork Documentation Methods:</b> Plan, detail and specification conventions and standards	<b>Assignment 7</b> – Metal Fence and Gates details selected site
Tues Oct 11th	<b>Lecture: Metals</b> –Railings – guardrails, stairs and ramps. Code requirements, materials, finishes, Assemblies	<b>Reading</b> – Code Requirements railings Review Hopper p. 273 – 284, latest edition US ADA Codes
Thurs Oct 13th	<b>Railings Documentation Methods:</b> Plan, detail and specification conventions and standards	<b>Assignment 8</b> –Railing details selected site
Tues Oct 18th	<b>Lecture: Wood</b> –Railings, decks, other structures materials, finishes, Assemblies	<b>Reading</b> – Wood Construction Hopper p 323 – 337, 524 – 531 Yglesias p.115 - 129

Thurs Oct 20th	<b>Wood Construction Documentation</b> <b>Methods:</b> Plan, detail and specification conventions and standards	<b>Assignment 9</b> –Wood construction details
Tues Oct 25th	<b>Lecture Materials Plans</b> – Graphic Conventions	<b>Reading</b> – Plan standards and symbols
Thurs Oct 27	<b>Lecture</b> - Selected Site Materials Plans and schedules - documentation	<b>Assignment 10</b> –Materials plans and schedules selected site
Tues Nov 1	<b>Lecture – Water Features</b> – equipment, finishes, code requirements, water treatment options.	<b>Reading</b> – Water Features Hopper p. 255 – 258 Yglesias p. 87 - 100
Thurs Nov 3	<b>Water Feature Documentation</b> Plans, details, specifications	<b>Assignment 11</b> - Selected Site Water feature details
Tues Nov 8	<b>Lecture - Irrigation Basics</b> – point of connection, system equipment, materials standards, planting and grading coordination	<b>Reading</b> – Irrigation Hopper p. 249 - 253
Thurs Nov 10	<b>Irrigation Documentation</b> Plans, details, water use calculations, specifications	<b>Assignment 12</b> - Selected Site Irrigation diagrams
Tues Nov 15	<b>Lecture – Site Lighting</b> – Design intent, equipment, coordination	<b>Reading</b> – Hopper p. 338 - 347
Thurs Nov 17	<b>Site Lighting - Documentation</b> Plans, details, specifications	<b>Assignment 13</b> - Selected Site Lighting Plan
	<b>Lecture – Planting Plans</b> – Symbols, schedules, details, specs and coordination	<b>Reading</b> –Planting documentation
Tues Nov 22	Field Trip – Location tbd.	<b>Assignment 14</b> – Site visit sketches
Thurs Nov 24	NO CLASS THANKSGIVING	
Tues Nov 29	<b>Lecture</b> – Final Project Introduction – Intervention Construction Set Selected Site	
Thurs Dec 1	<b>Class Meeting</b> - Q & A site details and documentation	
Class Final	Final Project Due Assigned Exam Date	

## Bibliography

### Required Text Book

Hopper, Leonard Landscape Architectural Graphic Standards Student Edition, Wiley and Sons, 2007, Hoboken, NJ

Yglesias, Caren, The Innovative Use of Materials in Architecture and Landscape Architecture: History, Theory and Performance, McFarland, Jefferson, North Carolina 2014 – Available on line via USC Electronic Library

**Additional Sources:**

Dines, Nicholas, Time Saver Standards Concise Site Construction Details Manual, McGraw Hill, NY NY, 1999

Hutchison, Edward, Drawing for Landscape Architecture Sketch to Screen to Site, Thames & Hudson, NY, NY 2011

Sauter, David, Landscape Construction, Thompson Delmar Learning, Clifton NJ, 2005

Thallon, Rob and Jones, Stan, Graphic Guide to Site Construction, The Tauton Press, Newtown, Conn. 2003

Walker, Theodore D., Site Design and Construction Detailing, Van Nostrand, NY, NY. 1992

Zimmermann A, Constructing Landscape: Materials, Techniques, Structural Components. 2nd, rev. and expand ed. Basel: Birkhäuser; 2011.

**Guest Lecturers**

Melendrez

TBD

## **USC Policies**

### **Statement for Students with Disabilities**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 A.M.–5:00 P.M., Monday through Friday. The phone number for DSP is (213) 740-0776.

### **Academic Conduct**

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/departments/departments-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage [sarc@usc.edu](mailto:sarc@usc.edu) describes reporting options and other resources.

### **Accreditation**

The Master of Landscape Architecture degree program includes three curricula. Curriculum +3 for students with no prior design education and Curriculum +2 for students admitted with advanced standing have full accreditation by the Landscape Architecture Accreditation Board. Information about landscape architecture education and accreditation in the United States may be found on-line at <http://www.asla.org/Education.aspx>.

### **Religious Holidays**

The University of Southern California recognizes the diversity of our community and the potential for conflicts involving academic activities and personal religious observation. The University provides a guide to such observances for reference and suggests that any concerns about lack of attendance or inability to participate fully in the course activity be fully aired at the start of the term. As a general principle, students should be excused from class for these events if properly documented and if provisions can be made to accommodate the absence and make up the lost work. Constraints on participation that conflict with adequate participation in the course and cannot be resolved to the satisfaction of the faculty and the student need to be identified prior to the add/drop date for registration. After the add/drop date the University and the School of Architecture shall be the sole arbiter of what constitutes appropriate attendance and participation in a given course.

## Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs*

[http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

## School of Architecture Attendance Policy

A student may miss the equivalent of one week of class sessions (in this case, **ONE, TWO, OR THREE (faculty, edit this as needed)** *excused* absences are permitted) without directly affecting the student's grade and ability to complete the course. An excused absence is a confirmed personal illness, family emergency, or religious holiday. For each absence over the allowed number, your grade can be lowered by 1/3-letter grade. If additional absences are required for a personal illness, family emergency, pre-approved academic reason/religious observance, you must discuss the situation with your faculty member immediately.

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 bathroom/water break) for more than 1/3 of the class time can be considered fully absent. If arriving late, a student must be respectful of a class in session and do everything possible to minimize the disruption caused by a late arrival. It is always the student's responsibility to seek means (if possible) to make up work missed due to absences, not the instructor's, although such recourse is not always an option due to the nature of the material covered.

## Sustainability Initiative

The School of Architecture has adopted the 2010 Initiative for Sustainability. Solutions to design problems must engage the environment in a way that dramatically reduces or eliminates the need for fossil fuel.