

# Syllabus – PEM344E - 22083

## Landscape Construction IV

### COURSE DESCRIPTION AND PURPOSE

**Landscape Construction IV** course includes sustainability topics in landscape architecture construction and design implementation: the concept of sustainability, keeping sites healthy, healing the injured sites, plants to sustain, water harvesting and recycling, selection of materials, guidelines for landscape energy conservation, the need for darkness and efficient lighting, making noise invisible and maintain to sustain.

The aims of this course to;

- Develop an understanding of measurable implications of the design and construction decisions on sustainability of ecology and the environment.
- Improve the ability to conceptualize sustainable materials and construction methods.
- Develop an understanding of essential considerations for designing an ecologically regenerative landscape.
- Develop a comprehension of the importance of independent research and survey of literature
- and landscape architectural industry for professional development and enhancement of personal
- knowledge, skills, and abilities.

Upon successful completion of the course students will be able to:

- Develop understanding and skills for creating projects that are ecological from design through construction and beyond.
- Learn overarching ideas that can and should be implemented in the sustainable landscape.
- Develop expertise in at least one specialty area, such as sustainable golf courses, best management practices, green infrastructure, roof top gardens and green rooftop gardens.

### MODULES

#### TERM PROJECTS

This module enables students to understand the relationships between sustainability, landscape design, ecology, construction and technology. The students are expected to present a design proposal within an SITES specified by the student, regarding natural and cultural datum in an existing environment. The project should be a partial proposed/revised/developed project of **Maçka Park** within the requirements of SITES Rating System v2. In this project, the students will gain skills in developing sustainable landscape design proposals in relation with the natural, ecological and constructional context in a local scope within parameters related to the scale of design. This project provides the students to represent their research and design their works by verbal, written, visual techniques as well as with state-of-the-art tools.

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### OTHER ACTIVITIES

Other activities such as trips, lectures, film screenings, seminars, temporary exhibitions, juries are considered to support course during the semester. The participation to these outings and other activities are mandatory.

### STUDIO

#### STUDIO HOURS

It is important that students attend the studio and actively participate in all the activities/discussions carried out/held during the course hours. Students are only allowed a maximum of 3 absences. The 4th absence will automatically cause the student to fail the course.

#### DISCUSSION

The works are commonly discussed in order to develop sustainable landscape design proposals of the students. Thus, the students are expected to develop a critical thinking perspective.

#### PROJECT DIARY

The students are expected to keep a written/visual log of their design process in a project diary; where they keep their sketches, notes and ideas regarding their projects. These project diaries will be included in the assessment process. The students are expected to use various techniques (drawings, diagrams, collages, writing etc.) in representing his/her ideas.

### EVALUATION SCHEME

ASSESSMENT CRITERIA	Activities	Quantity	Effects of Grading
	QUIZ	10	% 50
	PROJECT	1	% 10
	MID-TERM THRESHOLD		% 50
	FINAL SUBMISSION	1	% 40

- *Studio grades will be announced after 9th week.*
- *Students who fail to meet the specified mid-term requirements and fall below the midterm achievement score are considered not fulfill the final exam requirements. In this case final grade is assigned as "VF".*

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WEEKLY SCHEDULE	W	Study	Presentation	Course learning outcomes
1		Introduction to course and <b>Site Visit: Maçka Park</b>	Introduction, Site Visit	1,3
2		<b>SEMINAR: Farm to Fork @ MSGSU</b>	Farm to Fork	2
3		Q1 & Lecture: <b>SITES Rating System v2</b>	SITES Rating System v2	2,3
4		Q2 & SITE CONTEXT		1,2,3
5		Q3 & PRE-DESIGN ASSESSMENT & PLANNING		1,2,3
6		Q4 & SITE DESIGN: WATER		2,3
7		<b>DISCUSSION &amp; MID-TERM SUBMISSION</b>		1,3
8		<b>TERM BREAK</b>		
9		Q5 & SITE DESIGN: SOIL + VEGETATION		1,2,3
10		Q6 & MATERIALS SELECTION		1,2,3
11		Q7 & HUMAN HEALTH + WELL-BEING		2,3
12		Q8 & CONSTRUCTION		1,2,3
13		Q9 & OPERATIONS + MAINTENANCE		2,3
14		Q10 & EDUCATION + PERFORMANCE MONITORING & INNOVATION		2,3
15		<b>Youth and Sports Day – National Festival</b>		

**READING LIST**

- U.S. Green Building Council, SITES Rating System v2, <http://www.sustainable sites.org/>, 2019.
- Thompson, W. & K. Sorvig, Sustainable Landscape Construction: A Guide to Green Building Outdoors, Island Press, 2007.
- Benson, J. & M. Roe, Landscape and Sustainability, Spon Press, 2000.
- Biebighauser, T.R., Wetland Drainage, Restoration and Repair, University Press of Kentucky, 2007.
- Greater London Authority, Building Green: A Guide to Using Plants on Roofs, Walls, and Pavements, GLA, 2004.
- Higgs, E., Nature by Design: People, Natural Processes, and Ecological Restoration, MIT, 2003.
- Littlewood, M., Natural Swimming Pools: Inspiration for Harmony with Nature, Schiffer Design Books, 2005.
- Melby, P. & T. Cathcart, Regenerative Design Techniques, John Wiley & Sons, 2002.
- Moyer, J.L., The Landscape Lighting Book, Wiley, 2005.
- Perrow, M.R. & A.J. Davy, Handbook of Ecological Restoration, Cambridge University Press, 2002.