UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH

Course guide
290801 - STD1 - Studio I

Unit in charge:	Vallès School of Architecture
Teaching unit:	735 - PA - Department of Architectural Design.

Degree:	MASTER'S DEGREE IN ARCHITECTURAL DESIGN ECOLOGY IN THE DIGITAL AGE (Syllabus 2025). (Compulsory subject).

Academic year: 2025   **ECTS Credits:** 12.0   **Languages:** English

LECTURER

Coordinating lecturer:	Academic Coordination: Lluís Ortega
Others:	Teaching faculty: Lluís Ortega, Enrique Soriano, TBA

PRIOR SKILLS

No previous skills required

REQUIREMENTS

No previous skills required

TEACHING METHODOLOGY

The Studio format will operate through project-based learning, which the students will develop under the supervision and collaboration of the professors. The projects may be carried out individually or in pairs, in person in the classroom. In the course, the students will develop proposals within a common framework and methodology established by the professors. During the course there will be theoretical and participatory lecture classes, by faculty or guest lecturers that conclude with a discussion

LEARNING OBJECTIVES OF THE SUBJECT

K2.2 Select appropriate project techniques for the systematic exploration of design intentions in ecological terms.
K5.1 Identify the most appropriate digital fabrication and modeling methods for simulating the proposed project.
S3.1 Develop an innovative and original project that integrates into the existing ecological system.
S3.2 Identify advanced practices and knowledge related to the proposed project.
S6.1 Determine testing and evaluation frameworks for the proposed architectural models.
S6.2 Assess the effects of architectural organizations based on the established frameworks.
S9.2 Use digital technology critically.
C2.1 Apply all possibilities of digital technology and simulation and prediction models in the creation, development, and evaluation of the architectural project.
C3.1 Integrate theoretical discourse and architectural project into a unified and coherent proposal.
C5.1 Develop projects in teams and take on responsibilities in production management.
*k (knowledge); S(Skills); C (Competences)

CONTENTS

STUDIO I

Description:
Studio I and Studio II conform unitary research.
During Studio I we will focus on the design and research of system capable of establish a proto architecture. We will develop the project in two phases:
1. Architecture of Multiple Ecologies
Site Ecologies Model — Group Work
Steps:
- The group will document the site by building a dataset with all accessible data.
- Create a digital 3D model of the site focusing on the existing ecologies.
- Four systems will be documented: land, programs/types, urban, agricultural, infrastructural, architectural.
2. Protoarchitectures
A prototype will be developed by each student or group. The prototype should proliferates organizations based on the case studies from dataset of phase 1, developing a protoarchitectural model that launches an architecture thesis.
Steps:
- Catalog and documentation of the ground system: analyze texts and drawings and describe the system, identifying and documenting its components and the logics of their relationships. Design a diagram proliferating a ground pattern.
- Catalog and documentation of the technology system: analyze texts and drawings and describe the system, identifying and documenting its components and the logics of their relationships. Design a diagram proliferating a colonizing structural prototype.
- Integration of the ground model and structural model into a prototype: define and design ranges and patterns of differentiation.

Full-or-part-time: 300h
Laboratory classes: 120h
Self study : 180h

GRADING SYSTEM

It is expected that all students dedicate time, reflection, and considerable effort to their work. However, these factors alone do not guarantee any particular grade. Timely and complete work is required for a grade, but timeliness and completeness alone do not constitute or guarantee the grade. When the work is timely and complete, the quality of both the thinking and the production are the main considerations for the grade:
Excellent work: demonstrates the ability to identify and develop a unique line of inquiry that is derived from, but expands upon, the basic proposition of the assignment or course. Exceeds the expectations of the faculty and the assignment in both quality of thought and production.
Above-average work: excellent in understanding and developing the work in relation to the scope of the assignment. Demonstrates an ability to evaluate feedback and respond thoughtfully in the further development of the work.
Average work: meets the expectations and basic requirements regarding the scope of the assignment as set out in the tasks or stated by the instructor.
Below-average work: does not meet all expectations and basic requirements. Does not consistently demonstrate basic understanding of the primary course objectives and concerns and/or the ability to respond to feedback and guidance from the instructor. Is inconsistent in its production and development and is often late and/or incomplete.
Unacceptable work: does not meet most expectations and basic requirements. Rarely demonstrates a basic understanding of the primary course objectives and concerns and/or the ability to respond to feedback and guidance from the instructor. Is inconsistent in its production and development, and is consistently late and/or incomplete.
Attendance is mandatory.

EXAMINATION RULES.

Grades will be given for each project and will be based on the following criteria:
- Conceptual sophistication and critical thinking 20%
- Sophistication and scope of research and project development 20%
- Sophistication and quality of presentation material (drawings and models) 50%
- Participation in class and critiques 10%

BIBLIOGRAPHY

Basic:

- Banham, Reyner. Theory and design in the first machine age. 2a. New York: Praeger Publ, 1978.
- Banham, Reyner. Los Angeles : the architecture of four ecologies. Middlesex: Penguin Books Ltd, 1978. ISBN 9780520260153.
- Banham, Reyner. Architecture of the well-tempered environment. London: Architectural Press, 1964. ISBN 0851390749.
- Banham, Reyner. Megastructure : urban futures of the recent past. New York: The Monacelli Press, 2020. ISBN 9781580935401.
- Boden, Margaret A. The Creative mind : myths and mechanism. Second edition. London: Routledge, Taylor & Francis Group, 2004. ISBN 9780415314534.
- Koolhass, Rem. Countryside, a report : AMO, Rem Koolhaas. Köln: Taschen, 2020. ISBN 9783836584395.
- Ortega, Lluís; Najle, Ciro. Suprarural Architecture : architectural atlas of rural protocols in the American Midwest and the Argentine Pampas. New York City: Actar, 2017. ISBN 9781940291543.