

Course guide

210933 - TE III - Engineering Techniques III

Last modified: 14/12/2023

Unit in charge: Barcelona School of Architecture
Teaching unit: 753 - TA - Department of Architectural Technology.

Degree: MASTER'S DEGREE IN LANDSCAPE ARCHITECTURE (Syllabus 2015). (Compulsory subject).

Academic year: 2023 **ECTS Credits:** 3.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: MARIA DEL MAR PÉREZ CAMBRA

Others: Segon quadrimestre:
MARIA DEL MAR PÉREZ CAMBRA - Grup: 2N2S

PRIOR SKILLS

Tenacity

REQUIREMENTS

To know which construction systems can build the landscape, choice and use criteria to mitigate climate change effects.

TEACHING METHODOLOGY

The learning will be based on the technological development of the student's Master's Final Project from a constructive and environmental responsibility point of view.

Intervention will be made from the beginning of the project, using technology as a project resource. The tools will be provided in class to be able to carry out environmental analysis and improvement. The individual quantifications for each TFM will be developed during the course and will guide the student to choose and implement the elements that make up the landscape that will contribute to reducing the effects of climate change and materializing the landscape project.

It is expected that 2 hours of private work will be needed for each teaching hour (theoretical and practical).

LEARNING OBJECTIVES OF THE SUBJECT

The aim of the course is to provide the ability to design the landscape using technology tools from the beginning of the process.

By implementing technology tools from the beginning and sustainability criteria their landscape project will be empowered and enriched respecting its concept.

At the end, students must be able to develop technologically a professional landscape project with the extent and details required by professional project.

STUDY LOAD

Type	Hours	Percentage
Hours large group	22,5	100.00

Total learning time: 22.5 h

CONTENTS

Technological development of the landscaping project.

Description:

The contents are focused on specific areas of technology but depend each year on the TFM topics that are brought to class. They focus on basic axes and tools for environmental analysis and improvement and on the methodology to implement systems that mitigate climate change.

Specific objectives:

Being able to develop technological aspects of his Master's Project, at a professional level.
Having implemented the technology from the beginning of the project and being able to show the environmental improvement.
When it's required by the TFM, being able to materialize the landscape at E 1/20 with the systems that allow this environmental improvement, its quantification and its graphic verification. This analysis has to be implemented in future temporal phases and risk scenarios.

Related activities:

Depending on the themes of the TFM that arise each year, specific activities and conferences on specific technological knowledge areas that allow each theme to be developed.

Full-or-part-time: 28h

Practical classes: 28h

GRADING SYSTEM

It's continuous evaluation. Weekly attendance is necessary, if the initial level is basic. Proposals, successive corrections and personal contribution and involvement and personal development will make up the evaluation criteria.

To pass the subject, students will have to present the work of the workshop. Two intermediate submissions will be made previously to the final submission.

One delivery will be made in the middle of the semester and the second, shortly before the end. The final delivery will collect the previous two and collect the graphic-quantitative comparison between before and after the implementation of the technological-project resources, in order to verify that the effects of climate change are being mitigated.

Continuous assessment

Continuous assessment will be based on the work carried out by the student during the academic year, through the submission of assignments or the performance of written and/or oral tests, according to the criteria and timetable established.

Final assessment

If the continuous assessment is not positive, a second assessment may be carried out, which will consist of a final overall test in the established methodology according to the criteria of the lecturer in charge (written or oral test and/or submission of assignments).

Telematic continuous assessment

In online teaching situations, continuous assessment will be carried out synchronously and asynchronously, by the methods established by the University and the School, with a periodic record of academic activity by submitting assignments, forums, questionnaires or any other means provided by the Atenea platform, or the alternative tools provided to the teaching staff. In situations in which this telematic teaching takes place when face-to-face teaching has already begun, or for non-academic reasons, any alterations to the weightings or regular teaching control systems will be communicated in detail to all students on the Atenea platform for every subject.

Final telematic assessment

If the continuous telematic assessment is not positive, a second assessment may be carried out consisting of a final overall test in telematic format to be established in accordance with the criteria of the lecturers in charge and the ICT resources and tools provided by the University or the School. The measures for adapting to distance teaching will be implemented in accordance with ICT security and personal data protection criteria to ensure compliance as regards Personal Data

Protection legislation (RGPD and LOPDGDD).

EXAMINATION RULES.

2 submissions will be assessed and a final delivery will be submitted to achieve a proper rhythm and the content of the workshop.

BIBLIOGRAPHY

Basic:

- Paisea : revista de paisajismo = landscape architecture review. Valencia: Paisea Revista, 2007-.
- Detail: revista de arquitectura y detalles constructivos, núm. 4: Arquitectura y Paisaje. Bilbao: Elsevier, 2012.
- González, Josep Ll. Les claus per a construir l'arquitectura.. Barcelona: Departament de Política Territorial i Obres Públiques : GG, 1997-2001. ISBN 8425217245.
- Tectónica núm. 30 [on line]. Madrid: ATC ediciones, 2009 [Consultation: 11/11/2020]. Available on: <http://www.tectonica-online.com> (Accés restringit a usuaris UPC).
- a+t núm 35-36. Vitoria: a+t ediciones : Colegio Oficial de Arquitectos Vasco-Navarro, 2010.
- Alabern, E. Execució, inspecció i control d'obres d'urbanització : cadència d'execució i programes de control. Barcelona: Generalitat de Catalunya. Departament de Política Territorial i Obres Públiques. Direcció General d'Urbanisme, 1987. ISBN 9788425223150.
- a+t núm. 37. Vitoria: a+t ediciones : Colegio Oficial de Arquitectos Vasco-Navarro, 2011.
- Pérez, M^a del M. Construcción sostenible de espacio público [on line]. Barcelona: Universitat Politècnica de Catalunya. Iniciativa Digital Politècnica, 2015 [Consultation: 11/11/2020]. Available on: <http://hdl.handle.net/2099.3/36868> (Accés restringit per a usuaris UPC). ISBN 9788498805161.
- Astrid Zimmermann. Construir el paisaje: materiales, técnicas y componentes estructurales. Basilea: Birkhäuser, 2011. ISBN 9783034606943.

RESOURCES

Other resources:

INTRANET

<https://atenea.upc.edu/moodle/login/index>

Specific tools are yearly provided attending the the Master Final Thesis topics.