



UNIVERSIDADE LUSÍADA
LISBOA

Course Unit Program
Constructions

Academic Year 2023/2024

1. Organic Unit

Faculty of Architecture and Arts

2. Course

Architecture

3. Cycle

1st

4. Course Unit

Constructions (01322)

5. Scientific Area

6. Curricular Year

3rd

7. Type of Curricular Unit / Semester

1st Semester



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8. Class type and workload (work time)

Theoretical classes:

Practical classes:

Theoretical-Practical Classes 60,00

Tutorial Guidance:

9. ECTS Credits

3,50

10. Scientific Area Coordinator

Prof. Doutor Arq. VÍCTOR MANUEL CANEDO NEVES

11. Regent

12. Assistants

Profª Doutora Arqtª MARIA DE FATIMA SILVA

13. Teaching Language

Portuguese

14. General Objectives

Introducing the recognition and application of building materials and systems through the understanding that architecture has, in its legitimation, a tectonic construction process. Understand the close relationship between constructive aspects and architectural languages.

Framing the materials and construction techniques in the history of architecture, analyzing the most important and paradigmatic cases of erudite and vernacular/popular architecture, bridging the gap with contemporaneity.

15. Specific Objectives

Understanding the essence and characteristics of traditional and natural materials; Understanding the traditional and ancient building systems in Portugal; understanding its evolution over time; understanding the relationship between traditional materials and the geographic environment; understanding the importance of the Survey of Portuguese Popular Architecture. Understanding the close relationship between materials and building systems with architecture languages

16. Skills to be acquired

To understand the materials, techniques, and basic building systems through traditional buildings. To represent the materials through the sketch. To learn the technical representation of materials. To learn to organize drawings and define materials and construction systems in a project. To achieve the ability to deconstruct the materials of a building and report on the parts that compose them.



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17. Teaching Methodology

This curricular unit comprises theoretical and practical classes. Theoretical classes are given by the coordinator of the curricular unit through audiovisual means. Practical classes are taught by framing practical works and relating them to the project curricular unit.

18. Course Unit Program

The program initially focuses on the study of old buildings, seeking to understand the relationships between materials and regional cultures, between materials, hand and tool, which define the genesis of construction systems and the form/structure of built places.

Two main themes are included in the subject content. The rich heritage of Portuguese Popular Architecture, with a huge variety of materials and construction techniques

In a second phase, the student will select a contemporary material, and applying it in a practical exercise in which he reconciles this material with other traditional ones.

The following topics will be covered in theoretical classes:

- Introduction, Design, Portuguese popular architecture and Pombaline construction.
- From the architectural to the tectonic, considerations about space and the constructive elements that define it.
- The Survey of Popular Architecture in Portugal, and the text 'O problema da casa Portuguesa' by Fernando Távora.
- The Survey of Popular Architecture in Portugal, North Zone, granite and schist architecture.
- The Survey of Popular Architecture in Portugal. South Zone, earth architectures.
- The Survey of Popular Architecture in Portugal. Central Zone, from stone masonry to specific cases of wood on the coast.
- The Pombaline building. The cage
- Drawing as an instrument of representation of architecture.
- Contemporary materials. The role of industry and its relationship with the history of architecture

Two practical exercises will be carried out in the practical classes:

1-Survey of an example of Portuguese popular architecture.

1.1-Documented description of the building, context and respective construction systems.

1.2 - Section plans and elevations sc. 1:50 or higher

1.3- Survey of construction elements and relevant details

2- Project of an addition to the building from exercise 1, using contemporary material selected by the student.

2.1- Documented description of the application of this material

19. Assessment Methods

The evaluations will be continuous, the works will be in group and individual, elaborated predominantly in practical classes with the assistance of the practical teacher of each class.

The aim is to motivate the student's presence and intervention in classes, as well as a critical spirit and creativity, factors that, together with the work carried out, will be subject to evaluation.

The evaluations will be the joint responsibility of the coordinator and the other teachers.



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20. Didactic Resources

Slides and Powerpoint
videos
Moodle
UL Material Archive
Construction site trips
Study cases

21. Sustainability Objectives

The curricular unit aims to contribute to sustainability in the following general areas:

- Promoting the gradual dematerialization of the teaching/learning process.
- Promote and facilitate access to research and clean technologies.
- Recycle, reduce, and recover, whenever possible, materials and other consumables
- Promote the recycling of model materials

22. Keywords

- edification
- construction
- architecture
- popular
- Industry
- Globalization



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23. Main Bibliography

Author(s): TAVORA, F., AMARAL, Keil et.al;
Title: Arquitectura popular em Portugal.
Edition: Year: 2004
Local: lisboa
Publisher: Ordem dos Arquitectos

Author(s): Jorge Mascarenhas,
Title: Sistemas de Construção XV - Arquitetura Popular Portuguesa
Edition: Year: 2015
Local:
Publisher: Livros Horizonte

Author(s): Córias e Silva, Vítor ,
Title: Sistemas construtivos usados na reconstrução. A gaiola Pombalina?, estudos recentes,
Edition: FLAD/Publico Year: 2005
Local: Lisboa
Publisher:

24. Complementary Bibliography

Author(s): Brito da Silva, Paulo; Lisboa 2015
Title: Desenho Técnico em arquitectura e design
Edition: Year: 2015
Local: Lisboa
Publisher: Universidade Lusíada Editora,

Author(s): Veiga da Cunha, Luís,
Title: Desenho Técnico,
Edition: Year: 2004
Local: Lisboa
Publisher: Fundação Calouste Gulbenkian



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