UNIVERSIDADE LUSÍADA
LISBOA

Course Unit Program
Technical Installations

Academic Year 2026/2027

1. Organic Unit

Faculty of Architecture and Arts

2. Course

Architecture

3. Cycle

2nd

4. Course Unit

Technical Installations (01335)

5. Scientific Area

6. Curricular Year

4th

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

Profª Doutora Arqtª MARIA DE FATIMA SILVA

11. Regent

12. Assistants

13. Teaching Language

Portuguese

14. General Objectives

In this curricular unit, the student is led to interpret the general networks of urban infrastructure and relate them with the different technical projects. Essentially, the general objectives are:
-Understanding the relationship between general infrastructure and the urban design project.
-learn how to apply representation codes related to general infrastructures.
-Introducing new equipments and facilities that promote sustainability and response to climate change.

15. Specific Objectives

-To know the applicable regulations that condition the application of general infrastructure projects .
-Learning to evaluate the problems of environmental comfort, with the development of specific solutions in the project.

16. Skills to be acquired

-Learn to interpret urban design projects and coordinate urban infrastructure and equipment projects.
-Learn how to develop the execution project phase, as well as its representation techniques in drawing on an urban scale.

17. Teaching Methodology

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

18. Course Unit Program

1-Theoretical classes
- The architecture execution project. Technical representation. Map of finishing Materials
-Legislation applied to general infrastructures and its consequence in the project
-Cartography consultation related to general infrastructures
- Public water supply networks,
-Public sanitation and stormwater drainage networks
- Public electricity networks
-Public telephone and data networks
- Technical spaces in a collective housing building (elevators, waste ducts, pumping)
2- Practical classes:
In practical classes, the program focuses on the execution project of a building developed in the curricular unit of Project II, during the 1st semester with the consequent study and application of the following installations and networks:
-Execution project at scales 1:50 and 1:20, with a Map of Finishing materials
- Plan of roofs and drainage of rainwater and its connection to the general urban network
- Basement drain network and its connection to the general urban sewage network

19. Assessment Methods

The curricular unit is a semester unit, with two components, one practical and the other theoretical. The evaluation of the curricular unit is carried out on a continuous basis, that is, the student is evaluated by the interest he demonstrates in the subjects taught, his participation in classes, and respective attendance, and through all the work and evaluation instruments carried out throughout the year: sketches, theoretical tests, and practical projects

20. Didactic Resources

Slides and Powerpoint
videos
Moodle
UL Material Archive
Construction site trips

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

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22. Keywords

Execution
Infrastructures
NetworksTechnical installations
mobility
public place
basic sanitatio

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23. Main Bibliography

Author(s): SILVA, Paulo Brito,,
Title: Desenho técnico em arquitetura e design
Edition: Year: 2015
Local: lisboa
Publisher: Universidade Lusíada
ISBN Code:

Author(s): Allen, Edward
Title: Como funciona un edificio principios elementales
Edition: Year: 1987
Local: Barcelona
Publisher: Gustavo Gili
ISBN Code:

Author(s): Lopes, Carlos Nuno Lacerda
Title: Construção 2
Edition: Year: 2015
Local: Porto
Publisher: Centro de Inovação em Arquitectura e Modos de Habitar FAUP
ISBN Code:

24. Complementary Bibliography

Author(s): Autor(es): PINTO, Alberto Reaes, e outros
Title: Contribuições para a construção sustentável
Edition: Year:
Local: Lisboa
Publisher: Universidade Lusíada Editora,
ISBN Code:

Author(s): Conselho Arquitectos Europa
Title: A Green Vitruvius, princípios e práticas de projecto para uma arquitectura sustentável
Edition: Year:
Local: Lisboa
Publisher: Ordem dos Arquitectos

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