

POLI ESCOLA SUPERIOR TECNOLOGIA GESTÃO TÉCNICO GUARDA	SUBJECT DESCRIPTION	MODELO PED.013.03
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Course	Design de Equipamento					
Subject	Projeto IV					
Academic year	2023-2024	Curricular year	3rd	Study period	1st	
Type of subject	Compulsory	Student workload (H)	Total: 168	Contact: 60	ECTS	6
Professor(s)	Catarina Albuquerque Ferreira Carreto Rui Filipe Cardoso Carreto					
<input checked="" type="checkbox"/> Area/Group Coordinator <input type="checkbox"/> Head of Department		José Reinas dos Santos André				

PLANNED SUBJECT DESCRIPTION

1. LEARNING OBJECTIVES

The program of the discipline foresees that the student develops the following competences, in articulation with the curricular units of Workshop of Furniture and Prototypes:

- 1 - Develop, structure and support the skills needed to formulate aesthetic solutions in the area of product design.
- 2 - Define the necessary skills-oriented equipment design from the tetrahedron authorship / technology / program / ethics.
- 3 - Develop projects in the scope of product design, taking into account the user and their characteristics, physical, psychological, cultural and social.
- 4 - Develop equipment design projects considering the characteristics of usability of objects, ergonomic, social and economic for all phases of use of the object.
- 6 - Develop equipment design projects in an attempt to solve problems or user needs.
- 7 - Ability to develop products applying theoretical and practical knowledge, especially coordination with the curricular units of Furniture and Prototypes Workshop.
- 8 - Ability to develop teamwork within the framework of the applied project.
- 9 - Ability to develop research and apply technical knowledge in the performance of the project trinomial, verification, representation and communication.

2. PROGRAMME

Being this a final curricular unit of the project, it is intended to use a pedagogical language that allows an individual structuring of the design methodology, in the sense of formulating solutions to simple problems where the central theme is the products.

We can summarize the program by the following topics:

1. The problem

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1.1 The world; the system; the context

2. The solution

2.1 Development of the solution

2.2 Identification of the problem

2.3 Generation of several hypotheses

2.4 Tests

2.5 Prototype

3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

The syllabus intends that the learner enhance the points stated in the objectives of the curricular unit. The project to be developed, in coordination with the three curricular units, allows the student to have a better understanding of the methodology to be applied and possible technical solutions.

4. MAIN BIBLIOGRAPHY

BENYUS, Janine M. – Biomimicry: Innovation inspired by Nature. New York: HarperCollins, 1998

BONSIEPE, Gui – Teoria e Prática do Design Industrial. Lisboa: CPD, 1992.

BÜRDEK, Bernhard E. – Design: História, Teoria e Prática do Design de Produtos. São Paulo: Edgard Blücher, 2006.

MALDONADO, Tomás – Design Industrial. Lisboa: Edições 70, 1999.

MUNARI, Bruno – Das Coisas Nascem Coisas. Lisboa: Edições 70, 2004.

PAPANEK, Victor – Architectura e Design: Ecologia e Ética. Lisboa: Edições 70, 1995.

VEZZOLI, Carlo & Manzini, Enzo – Design for Environmental Sustainability. London: Springer, 2008.

WALKER, Stuart – Sustainability by Design. Explorations in Theory and Practice. London: Earthscan, 2006, 2006.

MAU, Bruce – Massive Change. London: Phaidon, 2004.

PILLOTON, Emily – Design Revolution: 100 Products that are changing people's lives. London: Thames & Hudson, 2009.

5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The project will be structured according to the phases that may become necessary depending on the problems to be addressed and the solutions found. There will be some practical exercises and some theoretical questions will be presented. The continuous evaluation will result from the sum of the classification attributed to:

1. Attendance, monitoring of the project(s) and active participation (10%)

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2. Project development and presentation (90%)

As it is a teaching project-based curricular unit with continuous assessment, no exams are foreseen in normal and recourse periods.

6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

The classes are given in an essentially practical environment where it is intended to provide the development of all the skills already indicated, taking into consideration that this course unit will be part of a group of curricular units that propose to work together.

7. ATTENDANCE

In this curricular unit, 2/3 of attendance at classes will be mandatory for students who opt for the continuous assessment process.

8. CONTACTS AND OFFICE HOURS

catarinacarreto@ipg.pt | Monday – 9-11am, Tuesday– 6-8pm

ruicarreto@ipg.pt | Monday – 6-8pm

DATE

25 de setembro de 2023