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| Course Unit | Product Design II | Field of study | Design |
| Bachelor in | Art and Design - Minor in Design | School | School of Education |
| Academic Year | 2023/2024 | Year of study | 2 |
| Type | Semestral | Semester | 2 |
| Level | 1-2 | ECTS credits | 5.0 |
| Code | 9898-662-2203-00-23 | | |
| Workload (hours) | 135 | Contact hours | T - , TP 18 , PL 20 , TC - , S - , E - , OT 16 , O - |

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Carlos Sousa Casimiro da Costa

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Understand the design dimension and intervention areas;
2. Use criteria of user behavior, functionality and usability, ergonomics and anthropometry in the design of a product;
3. Use design methods, techniques or tools in accordance with the specifications of a project;
4. Plan, design and validate a product;
5. Produce models and technical books for the validation of a product;
6. Produce visual means of communicating ideas and proposals.

Prerequisites

Before the course unit the learner is expected to be able to:
Without pre-conditions

Course contents

1. The dimension of design; 2. Product design; 3. Project; 4. Validation.

Course contents (extended version)

1. The dimension of design:
 - Design and innovation;
 - Strategic design;
 - Informal design;
 - Social design;
 - Design and sustainability;
 - Design the art and crafts.
2. Product design:
 - Designing over user behavior;
 - Design over the functional use and usability of products;
 - Design over the principles of ergonomics and anthropometry.
3. Project:
 - Planning and development of practical projects.
4. Validation.
 - Final design;
 - Technical books;
 - Registration and patents.

Recommended reading

1. DE MOZOTA, B. B. (2002). Design Management - Paris: Éditions d'Organisation;
2. HINTE, E. V. (1997). Eternally yours Time in design. Product value sustenance - 010 Publishers, Rotterdam;
3. MANZINI, E. (2003). Scenarios of sustainable wellbeing - Design Philosophy Papers;
4. MAU, B. (2004). Massive Change - Phaidon Press Limited, London;
5. MCDONOUGH W. & BRAUNGART, M. (2002). Cradle to cradle: remaking the way we make things - New York: North Point Press.

Teaching and learning methods

The UC is based on two components: theoretical and practical. In the theoretical sessions will be exposed contents through audiovisual information, supporting texts, case study analysis and research work proposals. In the practical sessions will be proposed to develop projects in the area of product design to enable test the theoretical concepts and develop projetual skills .

Assessment methods

1. CONTINUOUS EVALUATION - (Regular, Student Worker) (Final)
 - Projects - 60%
 - Reports and Guides - 30%
 - Presentations - 10%
2. EXAM EVALUATION - (Regular, Student Worker) (Supplementary, Special)
 - Projects - 60% (nº 4 art. 7 Frequency and Evaluation Regulations - Classification obtained in Continuous Assessment)
 - Practical Work - 40% (Theoretical practical work proposal with the respective technical report and oral presentation. .)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

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|--------------------------------|----------------------------------|------------------------------|------------------------------|
| Carlos Sousa Casimiro da Costa | Helena Maria Lopes Pires Genésio | António José Santos Meireles | Carlos Manuel Costa Teixeira |
| 25-03-2024 | 26-03-2024 | 24-04-2024 | 24-04-2024 |