INDUSTRIAL DESIGN PROJECT II

Degree in Industrial Design

Code: 17110

Main Scientific Area: Industrial Design

Lecturer: Miguel Machado de Sá Abreu Terroso

Language of Instruction: Portuguese

Regime: S1

Contact Hours: 90h Total Workload: 110h

ECTS: 7,0

Objectives

Design of an acrylic armor for an LED light table lamp and intended for interior spaces.

Operational objectives:
• Research to know the brand
• Definition of the project theme
• Communication of the theme through graphic references
• Formal and functional exploration drawings
• Definition of general lines and typologies
• Communication of the concept
• Realization of digital 3D models
• Renders with overview and details
• Construction of the final prototype

Learning Outcomes

General knowledge:
• To know the main international references associated with a design driven culture of lighting products for domestic and work environments, as well as their social and temporal contextualization.
• Develop the capacity for observation, synthesis and creativity, as well as the planning and management of a design project.
• Demonstrate self-esteem, motivation, autonomy and persistence.
• Develop problem-solving skills and conflict within a team.

Manual technical skills:
• Design of lighting components (cables, lamps, LEDs, structures, diffusers, bushes and sockets)
• Simulation drawings of glossy and matte plastic materials
• Projections with light projection and transparencies
• Acrylic prototyping techniques (cutting, folding, drilling, bonding)
• Prototyping techniques of diffuser materials (PP, PVC, PE, PC)

Digital technical skills:
• Solid 3D modeling of lighting components and fixtures
• Remove two-dimensional planes of 3D models in separate parts and convert to pdf and dxf for laser cutting

Course Contents

Project Preparation
Form groups of 2 elements
Assignment of the brand to each group

1. Research and definition of the theme
Research to know the brand
Definition of the project theme
Communication of the theme through graphic references

2. Development of the concept
Formal and functional exploration drawings
Cardboard prototypes

3. Final model
Realization of digital 3D models
Construction of the final prototype

Recommended Bibliography

Artemide Magazine, 2018.

Artemide Book, 2018.

Disponível em:www.artemide.com/en/download/magazines

Flos the Home Collection, 2018.

Disponível em:https://flos.com/downloads/catalogues/

Luceplan Product Collection, 2018.

Disponível em:https://luceplan.com/download

Learning and Teaching Methods

The objectives established correspond sequentially to the programmatic contents established for the UC, in this way it is expected that the students will retain the subjects through the accomplishment of a practical work in the form of a case study.

Assessment Methods

Assessment is continuous and will always have a formative intentionality, contributing effectively to the regulation of the teaching-learning process and the planning necessary corrective procedures. Depending on the objectives and skills to develop.

Formula for calculating assessment

F.G. =(1 x 0.3) + (2 x 0.3) + (3 x 0.4)

. Attendance, punctuality and participation in classes

Attendance and punctuality are key factors for good performance in the course and preparation for future professional life. Active participation in the classroom will enable students to take full advantage of the teacher and colleagues.

. Exams

The Curricular Unit does not include in its assessment regime an exam. The assessment is done by attendance in class and there is a requirement to be present in 2/3 of the classes, whoever does not meet this requirement will not be assessed.

. Exam time

In this curricular unit, and considering the continuous assessment regime, the 1st semester exam period does not apply (according to article 209 of the IPCA Academic Regulations).

. Grade improvement

In this course, grade improvement works by continuous assessment. Thus, grade improvement is possible by attending the curricular unit with the completion of a work proposal determined by the teacher at the beginning of the semester and duly agreed with the responsible teacher. Students wishing to undergo grade improvement should consult article 211 of the IPCA Academic Regulation.

. Special season exam:

The special exam period applies to students who are in this regime (according to article 135 and point 5 of article 209 of the IPCA Academic Regulation).