Course guide
320147 - PP - Product Presentation

Last modified: 11/04/2025

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 717 - DEGD - Department of Engineering Graphics and Design.

Degree: BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Compulsory subject).

Academic year: 2025 **ECTS Credits:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: Jordi Voltas i Aguilar

Others: Rosó Baltà
Oriol Quin

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CED20-DIDP. Ability to design and project in different environments of effective and efficient communication with the different agents involved in the industrial design and development process. (Specific technology module: industrial design).
CED21-DIDP. Ability to make decisions regarding the graphic representation of concepts. (Specific technology module: industrial design).
CED22-DIDP. Ability to apply specific methods, techniques and instruments for each form of technical representation. (Specific technology module: industrial design).
CED23-DIDP. Knowledge of design topology, products, and their presentation. (Specific technology module: industrial design).
CED27-DIDP. Knowledge of advanced 3D modeling. (Specific technology module: industrial design)
CED28-DIDP. Knowledge of basic 3D animation and simulation. (Specific technology module: industrial design)
CED61-DIDP. Practical knowledge of product detail design. (Specific technology module: Industrial Design)
CED62-DIDP. Practical ability to analyze the form, composition, and structure of the product. (Specific technology module: Industrial Design)

Generical:
CG02-DIDP. Acquisition of technical, scientific, humanistic, aesthetic, environmental and creativity enhancing knowledge and procedures necessary for professional practice related to product design.

TEACHING METHODOLOGY

- Theoretical classes
- Practical classes (individual or in group)
- Project development (individual or in group)

LEARNING OBJECTIVES OF THE SUBJECT

Optimal presentation of projects in three-dimensional environments.
Assimilation of the basic principles of animation in terms of simulation chambers.
The application of the principles of visual language.
Generation of three-dimensional animations.
Generation of audiovisual elements that mix real and virtual elements.

STUDY LOAD

Type	Hours	Percentage
Hours large group	15,0	10.00
Self study	90,0	60.00
Hours small group	45,0	30.00

Total learning time: 150 h

CONTENTS

TOPIC 1: Principles of animation

Description:
1.1. Fotorealistic environments
1.2. Virtual cameras
1.3. Rendering

Related activities:
Reading and analysis of sample material.

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

TOPIC 2: Global lighting models

Description:
2.1. Lighting photon map based
2.2. Lighting image based (IBL)

Specific objectives:
Rendering using photon map systems
Rendering using IBL systems

Related activities:
Reading and analysis of sample material
Solving on concret exercices
Layout of own proposals models.

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

TOPIC 3: Textures

Description:
3.1. Basic materials
3.2. Textures
3.2. Sample material collections
3.3. Unwrapping methods

Specific objectives:
Applying textures
Using rendering engines

Related activities:
Reading and analysis of sample material
Solving on concret exercices
Layout of own proposals models.

Full-or-part-time: 20h
Laboratory classes: 8h
Self study : 12h

TOPIC 4: Indor and outdoor scenes

Description:
4.1. Outdoor lighting
4.2. Indoor lighting
4.3. Exposure compensation
4.4. Lighting day / night

Specific objectives:
Applying audiovisual standards on lights and cameras to producte presentation images of products.

Related activities:
Reading and analysis of sample material
Solving on concret exercices
Layout of own proposals models.

Full-or-part-time: 20h
Laboratory classes: 8h
Self study : 12h

(ENG) TEMA 5: Introduction at 3D Animation

Description:
5.1. Animation by keyframe.
5.2. Dummies use
5.3. Animation curves edition
5.4. Parametric animation.
5.5. Camera animation.
5.6. Lights animation.

Specific objectives:
Setup of animation environemts
Do 3d animations of products to be presented

Related activities:
Reading and analysis of sample material
Solving on concret exercices
Layout of own proposals models.

Full-or-part-time: 20h
Laboratory classes: 8h
Self study : 12h

TEMA 6: Advances animation

Description:
6.1. Particles animation
6.2. Fisics

Specific objectives:
Add realism at product presentations using particle animation and fisics.

Related activities:
Reading and analysis of sample material
Solving on concret exercices
Layout of own proposals models.

Full-or-part-time: 20h
Laboratory classes: 8h
Self study : 12h

TEMA 7: Integración

Description:
7.1. Camera matching
7.2. Integration
7.3. Rendre elements
7.4. Editing and compositign

Specific objectives:
Mixing real and virtual models on product presentations

Related activities:
Reading and analysis of sample material
Solving on concret exercices
Layout of own proposals models.

Full-or-part-time: 20h
Laboratory classes: 8h
Self study : 12h

GRADING SYSTEM

The course is graded on the following areas:
- Presentation of individual works
- Presentation of projects
- Theory
40% Exams
20% Exam 1
20% Exam 2
Practices and deliverables along course: 60%
For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.
If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

EXAMINATION RULES.

Assistance at practices is compulsory.
The evaluation methodology will be:
- Questionnaires
- Evaluation of all the deliveries
- Correction process and participation by students

BIBLIOGRAPHY

Basic:
- Brooker, Darren. Essential CG lighting techniques with 3ds Max [on line]. 3rd ed. London: Routledge, Taylor & Francis Group, 2017 [Consultation: 14/07/2025]. Available on: https://doi-org.recursos.biblioteca.upc.edu/10.4324/9780080927015. ISBN 9781136138942.
- Eissen, Koos; Steur, Roselien. Sketching product design presentation. Amsterdam: BIS Publishers, 2014. ISBN 9789063693299.
- Robertson, Scott; Bertling, Thomas. How to render: the fundamentals of light, shadow and reflectivity. Culver City, CA: Design Studio Press, 2014. ISBN 9781933492964.