

Year 2024-25



**Istituto Europeo di Design**

Private Licensed Centre

TEACHING GUIDE FOR  
**Product Design**

Foundation Course – IED Madrid Diploma Programme

**Total Design**

Updated on: 1<sup>st</sup> September 2024

Foundation Course – IED Madrid Diploma Programme.  
Subject: Product Design

### 1. SUBJECT/ COURSE IDENTIFIERS

<b>Type</b>	Compulsory for specialised course
<b>Nature</b>	Theoretical-practical course
<b>Specialty/itinerary/style/tool</b>	Total Design
<b>Subject/Field</b>	Product and system projects
<b>Teaching/course period</b>	2 <sup>nd</sup> Semester
<b>Number of credits</b>	4 ECTS
<b>Department</b>	Didactic/Educational department
<b>Priority/ prerequisites</b>	Without priority
<b>Language/s in which the course is taught</b>	English

### 2. TEACHER IN CHARGE OF THE SUBJECT

<b>Surname &amp; name</b>	<b>E-mail</b>
Muñoz Nieto, Álvaro	

### 3. LIST OF LECTURERS AND GROUPS THEY TEACH

<b>Surname &amp; name</b>	<b>E-mail</b>	<b>Groups</b>
Muñoz Nieto, Álvaro		

### 4. COMPETENCIES/SKILLS

<b>Cross-sectoral skills</b>
CT1 Organise and plan the work in an efficient and motivating way.
CT2 Collecting meaningful information, analysing, synthesising and managing it accordingly.
CT3 Solving problems and making decisions in line with the objectives of the work performed.
CT8 Developing reasoned and critical ideas and arguments.
CT11 Developing a professional ethic based on the appreciation and sensitivity towards aesthetics, the environment and diversity.

CT14 Mastering research methodology in the generation/creation of projects, ideas and viable solutions.

CT16 Using the means and resources available to them with responsibility towards cultural and environmental heritage.

CT17 Through their professional activity they shall raise social awareness towards the importance of cultural heritage, its impact in different areas and its capacity to generate significant values.

#### General skills

CG1 Conceiving, planning and developing design projects according to technical, functional, aesthetic and communicative requirements and conditions.

CG3 Establishing relationships between formal language, symbolic language and specific functionality.

CG8 Proposing research and innovation strategies to solve expectations focused on functions, needs and materials.

CG14 Placing value in the dimension of design as an element for equality and social inclusion, and as a transmitter of cultural values.

CG19 Showing critical capacity and knowing how to propose research strategies.

#### Specific skills

CEP2 Solving design project problems using the right methodology, skills, and procedures.

CEP3 Proposing, assessing and establishing alternative solutions to complex product and system design problems.

CEP4 Assessing and integrating the aesthetic dimension in relation to the products' use and functionality.

CEP15 Reflecting on the positive social influence of design, its impact on improving the quality of life and the environment, and its ability to generate identity, innovation and quality in production process.

## 5. LEARNING ACHIEVEMENTS

- Knowing how to identify the disciplines of product, service and system design.
- Identifying the product design process.
- Identifying the elements that comprise these processes.
- Identifying the scope, fields of work and possibilities of all three: product, service and system design.

- Knowing how to apply the methodology behind product, service and system design projects.
- Knowing how to apply all the design phases to a project briefing: research, design and development, and communication.
- Gathering reference cases.
- Knowing how to build/draft the descriptive documentation required for a product design project: memory and drawings.
- Knowing how to develop volumetric mock-ups and models during the process, as well as the communication process for a product design project.

## 6. CONTENTS

Section (if applicable)	Topic/repertoire
<b>I. INITIATION TO PRODUCT DESIGN</b>	<b>Topic 1. The Product Designer's role</b>
	<b>Topic 2. The Designer's gaze. Strategic design</b>
	<b>Topic 3. The elements behind product, service and system design: user, form, function, material and field.</b>
	<b>Topic 4. Methodology behind the design process</b>
<b>II. PROJECT</b>	<b>Topic 5. The briefing and the degrees of relationship: user-object-space</b>
	<b>Topic 6. User-focused design, and user experience</b>
	<b>Topic 7. The design process: think, build, communicate</b>

## 7. STUDENTS WORK TIME PLAN/SCHEDULE

Type of activity	Total hours
Theoretical activities	13 hours
Practical activities	13 hours
Other mandatory training activities (conferences, seminars, etc.)	32 hours
Tests	14 hours
Student's working hours	15 hours

Internship/work placement preparation	27 hours
Taking test	6 hours
<b>Total student's working hours</b>	<b>120 hours</b>

## 8. METHODOLOGY

<p>Theoretical activities</p>	<p>The master class is mainly used for the teacher to provide a presentation and explanation of the contents, with the support and use of ICTs.</p> <p>During this presentation period, students may ask questions, any doubts that may arise can be solved, the search for information may be guided, and individual or group debates can take place, etc.</p> <p>During these sessions, the content of the subject is taught by proposing trilateral information inputs (teacher-student-student group), developing them in a tangible way through a series of exercises which are intended to be a part of the practical activities.</p>
<p>Practical activities</p>	<p>We use a Project-based learning process: situations in which students must explore and work on a practical problem by applying interdisciplinary skills under the teacher's supervision.</p> <p>In this case, skills related to the elements surrounding the design of a product, and the methodology of the design process, in its application to the design of products, services and systems, and the user's interaction with them. In this case, the project includes the development of a model.</p> <p>Project presentation: presentation of the project assigned to a student or group of students.</p>
<p>Other mandatory training activities (conferences, seminars, etc.)</p>	<p>Design workshop: period of instruction carried out with the objective of reviewing and discussing the concepts and topics presented during classes. In these support sessions - aimed at supporting the proposed tasks/work for the development of the course - the student will be able to solve doubts and broaden the contents taught in the theoretical and/or practical activities.</p>

## 9. EVALUATION AND GRADING CRITERIA AND INSTRUMENTS

### 9.1. EVALUATION-ASSESSMENT TOOLS

Theoretical activities	Students will be expected to participate in the debates generated in the theoretical sessions.
Practical activities	Students will be expected to develop deliverable material (practical exercises, case studies) as well as a final individual project related to the course contents. Specific handing-in requirements will be defined for each deliverable piece of work. Students must produce a model as part of their final project.
Other mandatory training activities (conferences, seminars, etc.)	Students must attend and participate in the design workshop space.

### 9.2. EVALUATION CRITERIA

Work to be assessed:

1. Knowing how to identify the disciplines of product, service and system design.
2. Identifying the product design process.
3. Identifying the elements that comprise these processes.
4. Identifying the scope, fields of work and possibilities of all three: product, service and system design.
5. Knowing how to apply the methodology behind product, service and system design projects.
6. Knowing how to apply all the design phases to a project briefing: research, design and development, and communication.
7. Gathering reference cases.
8. Knowing how to build/draft the descriptive documentation required for a product design project: memory and drawings.
9. Knowing how to develop volumetric mock-ups and models during the process, as well as the communication process for a product design project.

The evaluation assessment must be designed and planned in a manner that integrates it within the teaching/learning training activities.

The assessment of students learning ought to be continuous, personalized and integrative:

- Continuous: in that it is integrated into the teaching-learning process and consequently is not limited by dates or specific situations.
- Personalised: since it must take into account the capacities, skills and the student's attitude. Special attention will be paid to the student's participation in work groups.
- Integrative: in that it requires taking into account the general capacities established for each stage, this will be done through the objectives in the different units and areas.

Students' learning will be assessed in relation to the achievement of the educational objectives determined in the course curriculum, and associated to the general and specific objectives, taking as an immediate reference the evaluation criteria established for the area.

To assess students learning process we need to:

- Evaluate their curricular competence (abilities and aptitudes).
- Assess the factors that hinder or facilitate good learning.
- Encourage self-evaluation and co-evaluation of students amongst themselves, as a source of critical analysis of their results, to allow for changes in attitude and for their improvement.
- Value the learning context in which the student develops.

Theoretical activities	Class attendance. Taking part in the debates that come up during sessions.
Practical activities	Class attendance. Completion, presentation and prompt delivery (on the established date) of the proposed deliverable tasks, as well as handing in the individual or group final project, as proposed in the course contents: <ul style="list-style-type: none"> <li>• Assessment of the practical work carried out.</li> <li>• Evaluation of both the conclusions, and the handed-in projects.</li> <li>• Evaluation of the final model.</li> </ul> Assessment of students' interaction during the group project, if/when applicable.
Other mandatory training activities (conferences, seminars, etc.)	Students must attend and participate in the design workshop sessions.

### 9.3. GRADING CRITERIA

1. The evaluation system to be used in the subject/course is adapted to the continuous evaluation model.
2. In the continuous evaluation system, class attendance is compulsory, and students must comply with a percentage of activity in the presence of the teacher, which is estimated to be 80% (minimum).
3. If the student does not meet the criteria for continuous evaluation, they will hand in a specific task/project to be graded in an evaluation process with a loss of continuous evaluation – this may include any parts deemed necessary, and their corresponding relative weights are shown in the corresponding section of this guide.
4. In any case, the student will take an extraordinary exam, the structure, evaluation instrument and grading criteria for said exam is explained in this guide.
5. In order to opt for the continuous evaluation, each and every practical case proposed by teachers must be handed-in on the required set dates.

### 9.3.1. Evaluation/Assessment tools for the weighting of grades in the continuous assessment process

Tools	Weighting of grades
Completion, presentation, and handing-in the partial deliverable tasks	20%
Project completion, presentation and handing-in	70%
Taking part in workshops, corrections, debates	10%
<b>Total</b>	<b>100%</b>

### 9.3.2. Assessment tools for the weighting of grades in the evaluation process following a loss of continuous assessment/evaluation

Tools	Weighting of grades
Project completion, presentation and handing-in	60%
Completing the specific test for the evaluation in case of a loss of continuous evaluation	40%
<b>Total</b>	<b>100%</b>

### 9.3.3. Assessment tools for the weighting of grades in the extraordinary evaluation process

Tools	Weighting of grades
Completing, presenting and handing-in the courses final project	60%
Taking a specific test for the extraordinary evaluation	40%
<b>Total</b>	<b>100%</b>

### 9.3.4. Weighting of grades in the evaluation process for students with a disability

When the evaluation tools are adapted for this purpose, all the different types of disability must be taken into account.

Tools	Weighting of grades
These shall be determined taking different types of disability into consideration	
<b>Total</b>	<b>100%</b>



## 10. TIME PLANNING FOR THE CONTENTS, TEACHING METHODOLOGY AND EVALUATIONS

Session	CONTENTS, CONNECTED TEACHING METHODOLOGY, AND EVALUATION TOOLS		Total hours presence-based	Total hours non-presence-based
Session 1	<b>TOPIC 1: The Product Designer's role</b>			
	Theoretical activities	Master class developing the specific agenda of the section (The Product Designer's role). The teacher will display documents and images and analyse them using the necessary ICTs.	2,5 hours	2 hours
	Other learning activities	Design workshop	2 hours	
Session 2	<b>TOPIC 2: The Designer's gaze: strategic design</b>			
	Theoretical activities	Master class developing the specific agenda of the section (Strategic design). The teacher will display documents and images and analyse them using the necessary ICTs.	1 hour	1 hour
	Practical activities	Project launch	1 hour	3 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Project revision	0,5 hour	
Session 3	<b>TOPIC 2: The Designer's gaze: strategic design</b>			
	Theoretical activities	Master class developing the specific agenda of the section (Strategic design). The teacher will display documents and images and analyse them using the necessary ICTs.	1 hour	1 hour
	Practical activities	Practical work/Project	1 hour	2 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision	0,5 hour	

<b>Session 4</b>	<b>TOPIC 3: The elements of product, service and system design: user, form, function, material and field.</b>			
	Theoretical activities	Master class developing the specific agenda of the section (The elements of Product design). The teacher will display documents and images and analyse them using the necessary ICTs.	1 hour	1 hour
	Practical activities	Practical work/Project	1 hour	2 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop.	0,5 hour	

<b>Session 5</b>	<b>TOPIC 3: The elements behind product, service and system design: user, form, function, material and field.</b>			
	Theoretical activities	Master class developing the specific agenda of the section (Elements behind product design). The teacher will display documents and images and analyse them using the necessary ICTs.	1 hour	1 hour
	Practical activities	Practical work/Project	1 hour	2 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop	0,5 hours	

<b>Session 6</b>	<b>TOPIC 4: Methodology behind the design process</b>			
	Theoretical activities	Master class developing the specific agenda of the section (Methodology behind the design process). The teacher will display documents and images and analyse them using the necessary ICTs.	0,5 hour	1 hour
	Practical activities	Practical work/Project	1 hour	2 hours
	Other learning activities	Design workshop	2 hours	

	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop	1 hour	
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<b>Session 7</b>	<b>TOPIC 4: Methodology behind the design process</b>			
	Theoretical activities	Master class developing the specific agenda of the section (Methodology behind the design process). The teacher will display documents and images and analyse them using the necessary ICTs.	1 hour	1 Hour
	Practical activities	Practical work/Project	1 hour	2 Hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision.	0,5 hour	

<b>Session 8</b>	<b>TOPIC 5: The briefing and the degrees of relationship: user-object-space</b>			
	Theoretical activities	Master class developing the specific agenda of the section (The briefing and the degrees of relationship). The teacher will display documents and images and analyse them using the necessary ICTs.	0,5 Hours	1 Hour
	Practical activities	Practical work/Project	1 hour	2 Hours
	Other learning activities	Design workshop	2 Hours	
	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop.	1 Hour	

<b>Session 9</b>	<b>TOPIC 5: The briefing and the degrees of relationship: user-object-space</b>			
	Theoretical activities	Master class developing the specific agenda of the section (The briefing and the degrees of relationship). The teacher will display documents and images and analyse them using the necessary ICTs.	0,5 Hour	1 Hour
	Practical activities	Practical work/Project	1 Hour	2 hours
	Other learning activities	Design workshop	2 Hours	

	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop	1 Hour	
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<b>Session 10</b>	<b>TOPIC 6: User-focused design, and user experience</b>			
	Theoretical activities	Master class developing the specific agenda of the section (User relationship and user experience). The teacher will display documents and images and analyse them using the necessary ICTs.	0,5 hour	1 hour
	Practical activities	Practical work/Project	1 Hour	2 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision.	1 Hour	

<b>Session 11</b>	<b>TOPIC 6: User-focused design, and user experience</b>			
	Theoretical activities	Master class developing the specific agenda of the section (Design, user, and user-experience). The teacher will display documents and images and analyse them using the necessary ICTs.	1 Hour	1 hour
	Practical activities	Practical work/Project	1 Hour	2 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop	0,5 Hour	

<b>Session 12</b>	<b>TOPIC 7: The design process: think, build, communicate</b>			
	Theoretical activities	Master class developing the specific agenda of the section (Think, build, communicate). The teacher will display documents and images and analyse them using the necessary ICTs.	1 Hour	1 Hour
	Practical activities	Practical work/Project	1 Hour	2 hours
	Other learning activities	Design workshop	2 hours	

	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop	0,5 hour	
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	<b>TOPIC 7: The design process: think, build, communicate</b>			
<b>Session 13</b>	Theoretical activities	Master class developing the specific agenda of the section (Think, build, communicate). The teacher will display documents and images and analyse them using the necessary ICTs.	1 hour	1 Hour
	Practical activities	Practical work/Project	1 hour	2 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision	0,5 hour	

	<b>TOPIC 7: The design process: think, build, communicate</b>			
<b>Session 14</b>	Theoretical activities	Master class developing the specific agenda of the section (Think, build, communicate). The teacher will display documents and images and analyse them using the necessary ICTs.	0,5 hour	1 Hour
	Practical activities	Practical work/Project	1 hour	2 hours
	Other learning activities	Design workshop	2 hours	
	Evaluation	Practical work/Project revision. Proactive attitude in the classroom, sharing knowledge, experiences and the tools shared during the workshop	1 hour	

	<b>FINAL DELIVERY AND PROJECT PRESENTATION</b>			
<b>Session 15</b>	Other learning activities	Design workshop	4 hours	
	Evaluation	Students final project presentation	2,5 hours	6 hours

Session 16	<b>HANDING-OUT GRADES AND EVALUATIONS</b>			
	Evaluation	Handing over of grades to students, corrections and final evaluation.	2,5 Hours	

## 11. TEACHING RESOURCES & MATERIALS

In the virtual campus you may find resources and teaching materials for each thematic field/block.

### 11.1. General Bibliography

Title	¿Cómo nacen los objetos? Apuntes para una metodología proyectual - ( <b>Original title in English: "How are objects born?"</b> )
Author	Bruno Munari
Publisher	Gustavo Gil

Title	El rol del diseñador - (The closest/most similar <b>original title in English by Manzini found is: "Design, When Everybody Designs: An Introduction to Design for Social Innovation (Part of the <a href="#">Design Thinking, Design Theory Series</a>)</b> ).
Author	Ezio Manzini
Publisher	Experimenta

Title	Objectified (documental)
Author	Gary Hustwit
Publisher	-

### 11.2. Additional Bibliography

Title	La psicología de los objetos cotidianos - ( <b>Original title in English: "The Psychology Of Everyday Things"</b> )
Author	Norman, Donald A.
Publisher	Nerea

Title	Así se hace - ( <b>Original title in English: "Making It – manufacturing Techniques for Product Design"</b> )
Author	Lefteri, Chris
Publisher	Blume

### 11.3. Websites of interest

<http://www.archdaily.com/category/interiors/>

<http://www.designboom.com/>

<http://www.dezeen.com/>

<https://materialise.com>

### 11.4. Other materials and learning resources

A4 sketch pad or notebook.

Drawing tools: pencils, markers, etc.

Plasticine, cardboard, cardboard-foam, grey cardboard, modelling paste, high-density polyurethane foam.

Cutter, scissors, sandpaper, glue, adhesive tape.