Curso 2025-26

Istituto Europeo di Design
Centro privado autorizado

GUÍA DOCENTE DE

Projects. Service and System Design

Título de Grado en
Enseñanzas Artísticas Superiores de Diseño

Especialidad de Diseño de Interiores

Fecha de actualización: 1 de septiembre de 2026

Dirección General de Universidades y
Enseñanzas Artísticas Superiores
CONSEJERÍA DE CIENCIA, UNIVERSIDADES
E INNOVACIÓN

Título de Grado en Enseñanzas Artísticas Superiores de Diseño.
Subject: Projects. Service and System Design (Proyectos. Diseño de servicios y sistemas)

1. COURSE IDENTIFICATION

Type	Compulsory Specialisation Course	
Nature	Theory and Practice	
Specialisation / Pathway / Style / Instrument	Interior Design	
Subject Area	Interior Design Projects	
Teaching Period	5th Semester	
Number of Credits	6 ECTS	
Number of Hours	Total: 180h	In-person: 108h
Minimum Number of Students Required for the Course to Run	-	
Department	Interior Design Department	
Prerequisites	None	
Language(s) of Instruction	English	

2. COURSE COORDINATOR

Surname and Name	Email
Caraballo Llorente, Alejandro	campus IED

3. TEACHING STAFF AND GROUPS

Surname and Name	Email	Groups
Caraballo Llorente, Alejandro	campus IED	All

4. COMPETENCES

Transversal Competences
CTD1 Organise and plan work efficiently and effectively, fostering motivation.
CTD2 Gather relevant information, analyse and synthesise it, and manage it appropriately.
CTD3 Solve problems and make decisions in accordance with the objectives of the work being carried out.
CTD5 Understand and use at least one foreign language within the context of professional practice.
CTD7 Use communication skills and constructive criticism in teamwork.

CTD8 Develop ideas and arguments in a reasoned and critical manner.
CTD9 Integrate effectively into multidisciplinary teams and diverse cultural contexts.
CTD10 Lead and manage work teams.
CTD12 Adapt, in competitive environments, to cultural, social and artistic changes and to developments in professional practice, and select appropriate pathways for continuing education.
CTD13 Pursue excellence and quality in professional practice.
CTD14 Master research methodology in the development of projects, ideas and viable solutions.
CTD17 Contribute through professional practice to raising social awareness of the importance of cultural heritage, its impact across different fields and its capacity to generate significant values.

General Competences
CGD2 Master the languages and expressive resources of representation and communication.
CGD7 Organise, lead and/or coordinate work teams and adapt effectively to multidisciplinary teams.
CGD9 Research the intangible and symbolic aspects that influence quality.
CGD10 Be able to adapt to changes and developments in industrial technology.
CGD11 Communicate ideas and projects to clients, present reasoned arguments, evaluate proposals and facilitate dialogue.
CGD13 Understand the economic, social and cultural context in which design takes place.
CGD14 Recognise the role of design as a factor in equality and social inclusion, and as a means of conveying cultural values.
CGD17 Propose, evaluate and develop learning strategies appropriate to the achievement of personal and professional goals.
CGD19 Demonstrate critical thinking and the ability to develop research strategies.
CGD21 Master research methodology.

Specific Competences
CEI2 Conceive and develop interior design projects using criteria that improve the quality, use and consumption of production.
CEI3 Direct and certify the implementation of interior design projects.
CEI4 Analyse, interpret, adapt and produce information related to the materialisation of projects.
CEI10 Understand communication technologies and their applications to interior design.

CEI12 Understand the economic, social, cultural and historical context in which interior design is developed.
CEI15 Reflect on the positive social impact of design, its contribution to improving quality of life and the environment, and its capacity to generate identity, innovation and quality in production.

5. LEARNING OUTCOMES

- Be able to analyse and understand service and interaction models applied to virtual environments related to interior design.
- Learn to design and conceptualise innovative service and system proposals developed in virtual spaces, integrating user experience as the central focus.
- Develop and apply digital tools to represent and prototype services in the metaverse, combining spaces, objects and interactive journeys.
- Be able to critically evaluate and justify the relevance, accessibility and feasibility of a service designed in a virtual environment, relating it to contemporary references and sustainability criteria.
- Learn to communicate and present service design projects in virtual spaces using visual, narrative and immersive resources appropriate to academic and professional contexts.

6. CONTENT

Thematic Block (if applicable)	Topic / Content
I. PROJECT DEVELOPMENT	Topic 1. RESEARCH AND DOCUMENTATION Working Methodology Spatial Typologies.
	TOPIC 2. SPATIAL CONCEPT ● Conceptualisation, programme and materialisation. ● Subject Areality and virtuality.
	TOPIC 3. SPATIAL DESIGN AND TECHNICAL DEVELOPMENT ● Development of technical documentation for the interior design project. ● Subject Areality and virtuality
	TOPIC 4. TECHNICAL SPECIFICATIONS AND SUSTAINABILITY ● Development of construction details and technical documentation for interior design projects in virtual environments.
	TOPIC 5. COMMUNICATION Development of a communication proposal for an interior design project in virtual environments.

7. STUDENT WORKLOAD PLANNING

Type of Activity	Total Hours
Theoretical Activities	12.5 hours
Practical Activities	22 hours
Other Compulsory Training Activities (workshops, seminars, etc.)	48 hours
Assessment Activities	25.5 hours
Student Independent Work	7 hours
Preparation of Practical Work	38 hours
Assessment Activities	27 hours
TotalStudent Workload	**180 hours**

8. METHODOLOGY

Theoretical Activities	The main teaching method used is the lecture, in which course content is presented and explained by the lecturer, supported by the use of Information and Communication Technologies (ICT). During these sessions, questions may be raised, doubts clarified, guidance provided on information research, and individual or group discussions encouraged. These sessions cover the course content through a three-way exchange of information (lecturer-student-student group), which is then developed into tangible exercises designed to form part of the practical activities. At the end of these sessions, a series of assignments or tasks are proposed for students to develop individually or in groups during the practical activities.

Practical Activities	This project-based course combines interior design with digital tools for the development of services and systems. Students develop an interior design project in virtual environments, proposing services and systems through the application of the virtual reality tools learned and creating a complete experience within the space in order to communicate their project. Accordingly, the practical activities will include: ● Project-Based Learning: students explore and address a practical problem by applying interdisciplinary knowledge. In this case, they must develop a spatial design project in response to a given brief, using Virtual Reality as a design resource. Project Presentation: presentation of the project assigned to an individual student or group of students. In this case, project development includes the use of virtual reality devices.
Other Compulsory Training Activities (workshops, seminars, etc.)	Design Workshop: a teaching session led by a tutor with the aim of reviewing and discussing the materials and topics presented in class. These sessions support the work proposed for the course, allowing students to clarify questions and explore in greater depth the content covered in theoretical and/or practical activities.

9. ASSESSMENT AND GRADING CRITERIA AND METHODS

9.1. ASSESSMENT METHODS

Theoretical Activities	Students will be expected to participate in discussions held during theoretical sessions.
Practical Activities	An individual or group project related to the course content will be developed. Specific submission requirements will be established for each deliverable.
Other Compulsory Training Activities(workshops, seminars, etc.)	Attendance and participation in the Design Workshop will be required.

9.2. ASSESSMENT CRITERIA

The following will be assessed:

● Be able to analyse and understand service and interaction models applied to virtual environments related to interior design.

● Learn to design and conceptualise innovative service and system proposals developed in virtual spaces, integrating user experience as the central focus.

● Develop and apply digital tools to represent and prototype services in the metaverse, combining spaces, objects and interactive journeys.

- Be able to critically evaluate and justify the relevance, accessibility and feasibility of a service designed in a virtual environment, relating it to contemporary references and sustainability criteria.

- Learn to communicate and present service design projects in virtual spaces using visual, narrative and immersive resources appropriate to academic and professional contexts.

Assessment must be designed and planned in such a way that it is integrated into teaching and learning activities.
Student assessment should be continuous, personalised and comprehensive:

- Continuous, as it is embedded within the teaching and learning process and is therefore not limited to specific dates or assessment situations.

- Personalised, as it must take into account each student's abilities, skills and attitudes. Particular attention will be paid to the student's participation in group work.

- Comprehensive, as it requires consideration of the general competences established for the programme through the objectives of the different thematic units and subject areas.

Students' learning will be assessed in relation to the achievement of the educational objectives established in the curriculum and associated with the general and specific objectives, taking the assessment criteria established for the subject area as the primary reference.

In order to assess the students' learning process, it is necessary to:

- Assess their curricular competence (abilities and aptitudes).

- Assess the factors that hinder or facilitate effective learning.

- Encourage student self-assessment and peer assessment as a means of analysing and critically reviewing results, allowing students to adjust their attitudes and approaches in order to improve.

- Assess the learning context in which the student develops their knowledge and skill**s.**

Theoretical Activities	Participation in discussions held during the sessions.

Practical Activities	Completion, presentation and submission by the established deadline of the proposed individual or group final project related to the course content:
	- Assessment of the conclusions or project presented
	- Assessment of the use and operation of virtual reality devices
	  - Consistency between the initial proposal and the final outcome.
	  - Relevance of the proposed service in relation to the analysis of existing services and user and social needs.
	  - Communication and graphic and visual development of the project

Other Compulsory Training Activities(workshops, seminars, etc.)	Attendance and participation in Design Workshop sessions.

9.3. GRADING CRITERIA

1. The assessment system used in this course follows a continuous assessment model.
2. Under the continuous assessment system, class attendance is compulsory, and students must attend at least 80% of the activities conducted in the presence of the lecturer.
3. Students who do not meet the requirements for continuous assessment must complete a specific submission for assessment without continuous assessment. This may include any components deemed appropriate, with their corresponding weightings specified in the relevant section of this course guide.
4. In all cases, students will have access to an extraordinary assessment opportunity, the structure, assessment methods and grading criteria of which are specified in this course guide.
5. To be eligible for continuous assessment, students must submit each and every practical assignment by the established deadline.

9.3.1. Weighting of Assessment Components for Continuous Assessment

Assessment Components	Weighting
Interim Course Submissions.	40%
Completion, presentation and final project submission	50%
Critical and well-reasoned participation in sessions: workshops, tutorials, discussions...	10%
Total	100%

9.3.2. Weighting of Assessment Components for Assessment without Continuous Assessment
Reasons why a student may lose the right to continuous assessment: failure to meet the compulsory class attendance requirement, set at a minimum of 80% of activities conducted in the presence of the lecturer.

Assessment Components	Weighting
Completion, presentation and project submission.	60%
Completion of a Specific Assessment for Students Who Have Lost the Right to Continuous Assessment	40%
Total	100%

9.3.3. Weighting of Assessment Components for the Extraordinary Assessment

Assessment Components	Weighting
Completion, presentation and final project submission	60%
Completion of a Specific Assessment for the Extraordinary Assessment	40%
Total	100%

9.3.4. Weighting for the Assessment of Students with Disabilities

Adaptations to assessment methods must take into account the different types of disability.

Assessment Components	Weighting
To be determined according to the student's specific needs.	
Total	100%

10. SCHEDULE OF CONTENT, TEACHING METHODOLOGY AND ASSESSMENT

Session	CONTENT, ASSOCIATED TEACHING METHODOLOGY AND ASSESSMENT METHODS		Total Hours In-Person	Total hours no presence base
Sessions 1 and 2	**TOPIC 1. RESEARCH AND DOCUMENTATION**			
	Theoretical Activities	Lecture covering the specific content of the section (research and documentation).	2 hours	2 hours
	Practical Activities	Practical application of research methodologies to generate service models in virtual spaces.	2 hours	4 hours
	Other Training Activities	Attendance at the Design Workshop	4 hours	
	Assessment	Review and discussion of practical case analyses	1 hour	
Session 3	**TOPIC 1. RESEARCH AND DOCUMENTATION**			
	Theoretical Activities	Lecture covering the specific content of the section (research and documentation).	0.5 hours	
	Other Training Activities	Attendance at the Design Workshop	2 hours	
	Assessment	Interim submission. Research conclusions	2 hours	3 hours

Sessions 4 and 5	**TOPIC 2. SPATIAL CONCEPT**			
	TheoreticalActivities	Lecture covering the specific content of the section (spatial concept).	1 hour	1 hour
	Practical Activities	Project Work	3 hours	5 hours
	Other Training Activities	Design Workshop	4 hours	
	Assessment	Project Review	1 hour	

Session 6	**TOPIC 2. SPATIAL CONCEPT**			
	Other Training Activities	Design Workshop	2 hours	
	Assessment	Interim project submission. Service and spatial concept	2.5 hours	3 hours

Session 7, 8 and 9.	**TOPIC 3. SPATIAL DESIGN AND TECHNICAL DEVELOPMENT**			
	Theoretical Activities	Lecture covering the specific content of the section (spatial design and technical development).	1.5 hours	2 hours
	Practical Activities	Project Work	4.5 hours	7 hours
	Other Training Activities	Design Workshop	6 hours	
	Assessment	Project Review	1.5 hours	

Session 10	**TOPIC 3. SPATIAL DESIGN AND TECHNICAL DEVELOPMENT**			
	Other Training Activities	Design Workshop	2 hours	
	Assessment	Interim project submission. Spatial development	2.5 hours	5 hours

Sessions 11 and 12	**TOPIC 4. TECHNICAL SPECIFICATIONS AND SUSTAINABILITY**			
	Theoretical Activities	Lecture covering the specific content of the section (technical specifications and sustainability).	1 hour	1 hour
	Practical Activities	Project Work	3 hours	5 hours
	Other Training Activities	Design Workshop	4 hours	
	Assessment	Project Review	1 hour	

Session 13	**TOPIC 4. TECHNICAL SPECIFICATIONS AND SUSTAINABILITY**			
	Other Training Activities	Design Workshop	2 hours	
	Assessment	Interim submission. Project development status.	2.5 hours	5 hours

Session 14	**TOPIC 5. COMMUNICATION**			
	Theoretical Activities	Lecture covering the specific content of the section (communication).	1 hour	1 hour
	Practical Activities	Project Work	1 hour	2 hours
	Other Training Activities	Design Workshop	2 hours	
	Assessment	Project Review	0.5 hours	

Session 15-16	**TOPIC 5. COMMUNICATION**			
	Theoretical Activities	Lecture covering the specific content of the section (communication).	1 hour	
	Practical Activities	Project Work	3 hours	6 hours

	Other Training Activities	Design Workshop	6 hours	
	Assessment	Project Review	1 hour	

Session 17	**TOPIC 5. COMMUNICATION**			
	Other Training Activities	Design Workshop	4 hours	
	Assessment	Project Review	2.5 hours	3 hours

Sessions 18-19-20	**PROJECT DEVELOPMENT.**			
	Other Training Activities	Design Workshop	6 hours	
	Clases prácticas	Development of virtual tools.	5 hours	9 hours
	Assessment	Project Review	2.5 hours	

Session 23	**FINAL PROJECT PRESENTATION AND DEFENCE**			
	Other Training Activities	Design Workshop	4 hours	
	Assessment	CONTINUOUS ASSESSMENT: Final project defence. ASSESSMENT WITHOUT CONTINUOUS ASSESSMENT: Submission and defence of the course project and completion of the specific assessment for this assessment opportunity.	2.5 hours	8 hours

Session 24	ASSESSMENT AND GRADE RELEASE			
	Assessment	Release of grades to students, feedback and final assessment.	2.5 hours	

11. TEACHING RESOURCES AND MATERIALS

Teaching resources and materials available on the virtual campus for each thematic block:

- PDF files
- Explanatory videos
- Video screen captures recorded from the lecturer's computer during selected sessions.

Specific software will also be available on the classroom computers:

- Revit: project modelling
- Rhinoceros: project modelling.
- Unreal Engine: creation of real-time experiences, VR, rendering and video
- Twinmotion: creation of real-time experiences, VR, rendering and video
- Sketchfab: creation of real-time experiences, VR, rendering and video
- Photoshop: texture editing and image post-production
- OBS: Screen capture.

Specific resources for exercises, such as models, textures and scripts, will be stored on the virtual platform so that they are accessible at any time.

11.1. General Bibliography

Title	*Diseñando mundos virtuales –*
Author	Richard A. Bartle
Publisher	New Riders

Title	How to Land in the Metaverse: From Interior Design to the Future of Design
Author	Crosby Studios & Harry Nuriev
Publisher	Rizzoli International Publications, Incorporated (2023)

11.2. Supplementary Bibliography

Title	3D Photorealistic Rendering: Interiors & Exteriors with V-Ray and 3DS Max
Author	Jamie Cardoso
Publisher	CRC Press. Taylor & Francis Group

Title	Architectural Photography: Composition, Capture, and Digital Image Processing
Author	Adrian Schulz
Publisher	Rocky Nook

11.3. Useful Websites

DigitalES (2023). *Libro Blanco del Metaverso*. Asociación Española para la Digitalización. Disponible en: https://www.coit.es/sites/default/files/digitales_libro_blanco_del_metaverso.pdf

Rawat, D. B., & El Alami, H. (2023). *Metaverse: Requirements, Architecture, Standards, Status, Challenges, and Perspectives. IEEE Internet of Things Magazine, 6*(1), 14–18. Disponible en: https://arxiv.org/abs/2302.01125

Martínez Fernández, Andrea. *Influencia de la arquitectura en el proceso creativo: en el ámbito de los espacios de trabajo según los nuevos modelos de negocio*. Madrid: ETSAM, UPM, junio de 2017. Trabajo Fin de Grado.
http://oa.upm.es/47569/.

11.4. Other Teaching Materials and Resources

Rhinoceros	Project modelling
Unreal Engine	Creation of real-time experiences, VR, rendering and video
Twinmotion	Creation of real-time experiences, VR, rendering and video
Photoshop	Texture editing and image post-production
OBS	Captura de pantalla