



Universitat de Lleida

DEGREE CURRICULUM

INTERIOR DESIGN 3

Coordination: COMA ARPON, JULIA

Academic year 2023-24

Subject's general information

Subject name	INTERIOR DESIGN 3			
Code	101449			
Semester	1st Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's Degree in Architectural Technology and Building Construction	4	OPTIONAL	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRAULA	TEORIA	
	Number of credits	3	3	
	Number of groups	1	1	
Coordination	COMA ARPON, JULIA			
Department	INDUSTRIAL AND BUILDING ENGINEERING			
Important information on data processing	Consult this link for more information.			
Language	Catalan / Spanish (50/50 %)			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
BURGUES SOLANES, JOSEP MARIA	josemaria.burgues@udl.cat	3	
COMA ARPON, JULIA	julia.coma@udl.cat	1	
LORENTE MESA, FEDERICO	frederic.lorente@udl.cat	2	

Subject's extra information

In this subject the students will mainly work on the approach of writing technical projects regarding indoor design of buildings and offices and also the creation of graphic material and presentation by using free software.

Learning objectives

The learning objectives of this subject are:

- To apply the advanced necessary tools to solve the diverse parts involved in indoor design technical projects and its management.
- To prepare and illustrate the graphic documentation of a project, to collect data, survey plans and geometric control of work units in interior design projects.
- To prepare drafts and write technical projects for works and constructions, which do not require an architectural project, such as demolition, decoration and interior design projects.
- To use the appropriate technological innovations for the process, design and communication of design projects.
- To use spatial representation systems, sketch development, proportionality, language and techniques for the graphic representation of elements and construction processes in interior design projects.
- To identify the construction elements and systems, to define their function and compatibility, and their implementation in the construction process (plan and solve construction details).
- To write documents that are part of execution projects elaborated in a multidisciplinary way.
- To apply technical regulations in the building process, and generate technical specific documents for building procedures and construction methods.
- To program and organize the construction processes plan, the work teams, and the technical and human resources for their execution and maintenance.
- To analyze, design and execute technical solutions that facilitate the universal accessibility in buildings and their surroundings.
- To carry out building evacuation projects.

Competences

Competencies

- **Transversal Competencies EPS:**

EPS3. Capacity to convey information, ideas, problems and solutions to both a specialized and no specialized

public.

EPS7. Capacity to work in situations with a lack of information and/or under pressure.

EPS8. Capacity of planning and organizing the personal work.

- **Especific Competencies according to *ORDEN ECI/3855/2007*:**

GEE3. Capacity to apply the spatial representation methods, the development of the sketch, the proportionality, the language and the techniques of graphic representation of the elements and constructive processes.

GEE9. Ability to interpret and elaborate the graphical documentation of a project, perform data collection, plan preparation and geometrical control of work units.

GEE12. Manufactured or traditional constructive systems and materials knowledge, its varieties and physics and mechanical characteristics that define them.

GEE18. Aptitude to take part in the rehabilitation, restoration and conservation of the built heritage.

GEE21. Capacity to apply technical rules to the building process, and produce documents of technical specification of the procedures and constructive methods of buildings.

GEE29. Aptitude to analyse, design and execute solutions that allow the universal access to buildings and surroundings.

GEE30. Knowledge of professional work organization and studies organization, offices and professional societies, the regulation and the legislation related with the functions that develop a Building Engineer and the legal framework of responsibility associated to the activity.

GEE31. Capacity to calculate basic, auxiliaries, unitary and decomposed prices of the units of work; analyse and control costs during a building process; to be able to do budgets.

GEE33. Capacity to analyse and make projects of evacuation of buildings.

GEE35. Capacity to apply advanced tools needed to compose the different parts of a technical project and its management.

GEE36. Skills to write technical projects of building sites and constructions that do not require architectural projects such as projects of demolition and decoration.

GEE37. Skills to write documents that are part of the executive project created in a multidisciplinary way.

Subject contents

T1: Technological Innovation in Interior Design (BLOCK 2)

- 1.1. Graphic and Parametric Representation of Interior Spaces
- 1.2. Tools for Interior Design
- 1.3. Moodboard and Construction Materials
- 1.4. Infographics
- 1.5. Practical Workshops

T2: Preexistence: Space, Construction, Materiality (BLOCK 1)

- 2.1. Introduction to Interior Design Concepts
- 2.2. Preexistence Analysis

2.2.1 Construction Considerations and Regulations

2.2.2 Space Transformation and Adaptation

2.2.3 Interactions of Transformations with the Nature of Construction and Coexistence

2.2.4 How We Organize and Occupy the Created Space

2.2.5 Materialities for Formalization of Created Space. Aesthetic and Technical Relationship

2.3. SketchUp (Trimble)

2.3.1 - Introduction and Project Import

2.3.2 - Graphic Surveys, Models, Visualization

2.3.3 - Databases (materials, textures, objects, etc.)

2.3.4 - Lighting and Rendering (image and video)

T3: Virtual Reality (BLOCK 3)

3.1. Introduction to Virtual Reality Concepts

3.2. Transition from 3D Modeling to Virtual Reality

3.3. Introduction to TWINMOTION

3.3.1 - Introduction and Project Import

3.3.2 - Models, Visualization

3.3.3 - Databases (materials, textures, objects, etc.)

3.3.4 - Lighting and Rendering (image and video)

3.35 - Virtual Reality Laboratory Project Workshop

T4. Cross-Interior Design Project (BLOCK 2)

4.1. Practical Applications for Interior Design of Public or Private Spaces

4.2. Functional Program

4.3. Spatial Composition

4.4. Accessibility

4.5. Interior Atmosphere

4.6. Materials

4.7. Color

4.8. Lighting

4.9. Regulations

4.10. Project Management and Planning

Methodology

- **Master classes:** lecturers give the theory and expose some examples of real projects.
- **Workshops:** The students share the doubts with the lecturers and present the challenges of the proposed projects that appear during the progress. The students are guided by the teaching staff in individual and/or group sessions to supervise and promote the progress of the projects.
- **Project follow-up:** The students make presentations of their project progress in the different evolution phases (preliminary project, basic project, executive project). The lecturers evaluate and provide constructive and critical comments for the correct development of projects.
- **Practices:** Delivery of several exercises and evaluable projects both at the home and in the class using software available in the computer laboratory or free software.

Development plan

W1 1 Introduction to the visualization tools used in interior design --> Frederic Lorente

W2 2 Introduction to Interior Design Concepts and Course Exercise Presentation --> JM Burgúes

3 HOLIDAY / NO CLASSES (5:00 PM)

W3 4 Preexistence: Space, Construction, and Materiality. Presentation of Student Work Object - Workshop --> JM Burgúes

5 HOLIDAY / NO CLASSES

W4 6 Presentation of Student Exercise Survey - 1st Evaluation Note 1 --> JM Burgúes

7 Digital Moodboard, Materials Database --> Frederic Lorente

W5 8 Preexistence Analysis - Workshop --> JM Burgúes

9 HOLIDAY / NO CLASSES

W6 10 Construction Considerations and Regulations for Space Transformation and Adaptation - Workshop --> JM Burgúes

11 Practical Workshop - Moodboard --> Frederic Lorente

W7 12 Interactions of Transformations with the Nature of Construction and Coexistences - Workshop --> JM Burgúes

13 Sketchup Graphics Survey, Introductory Session and Imports (CAD, IFC, ...) --> Frederic Lorente

W8 14 Presentation of the Distribution Proposal Based on Preexistence Analysis - 2nd Evaluation Note. 1 --> JM Burgúes

15 Sketchup Graphics Survey, Model Creation, Texture Import. Visualization Styles --> Frederic Lorente

W9 16/17 Midterm Exams / Midterm Evaluation 1

W10 18 How We Organize and Occupy the Created Space and Its Technical Implications - Workshop --> JM Burgúes

19 Sketchup Graphics Survey: Lighting and Rendering of Images and Videos with Enscape --> Frederic Lorente

W11 20 Materialities for Formalization of Created Space. Aesthetic and Technical Relationship - Workshop --> JM Burgúes

21 Sketchup Modeling Practice Workshop (basic) --> Frederic Lorente

W12 22 Workshop - Preliminary Review before Final Submission --> JM Burgúes

23 Components in Sketchup (Objects) and Online Repositories. --> Frederic Lorente

W13 24 Final Work Presentation - 3rd Evaluation Note 1 --> JM Burgúes

25 HOLIDAY / NO CLASSES

W14 26 Twinmotion - Introduction/Import --> Julià Coma

27 Twinmotion - Materials - Objects --> Julià Coma

W15 28 Twinmotion - Final Rendering --> Julià Coma

29 Twinmotion/Virtual Reality Workshop - Projects --> Julià Coma

W16 30/31 Midterm Exam 2 / Midterm Evaluation 2

W17 32/33 EXAMS week

W18 34/35 Tutorials / Seminars

W19 36/37 Recovery Exams / Recuperations

Evaluation

Activities		%	Min.	Mandatory	Recoverable
BLOCK 1	Presentation of Student Exercise	10 %	No	YES	No
BLOCK 1	Presentation of Distribution Proposal	17,5 %	No	YES	No
BLOCK 1	Final Presentation	22,5 %	5/10	YES	
BLOCK 2	Practical Exercise - Sketchup	10 %	No	YES	No
BLOCK 3	Practical Exercise - Twinmotion Final project	15 %	5/10	YES	
BLOCK 2	Cross-Practice - Graphic Representation + Photorealism	25 %	5/10	YES	YES

- To pass the course, it is necessary for the FINAL GRADE OF EACH BLOCK to be greater than or equal to 5.
- In case you have not passed the course, you can take a recovery test for each block, which consists of a practical examination.

**The maximum grade you can obtain in the recovery test is 6.9 (Pass).

Evaluación Alternativa:

It will be carried out through a practice covering the entire course content and with a weight of 60% (in two parts) towards the final grade, along with a written exam. A minimum grade of 4 is required to calculate the average with the grade.

Activities		Ponderación	Nota mínima	Obligatorio
ALL THE BLOCKS	First Presentatopm	30 %	No	Si
ALL THE BLOCKS	Ffinal Presentation	30%	No	Si
ALL THE BLOCKS	Practical/teoric Exam	40 %	No	Si

- $\text{Final_Grade} = 0.30 * \text{First Review} + 0.30 * \text{Final Presentation} + 0.40 * \text{Written Exam}$
- To pass the course, the FINAL_GRADE must be greater than or equal to 5.
- In case you haven't passed the course, you can take a recovery test.
- In this case, the grade will be calculated as follows: N_REC: grade of the recovery test. $\text{FINAL_GRADE} = 100\% \text{ N_REC} (\text{BLOCK 1} + \text{BLOCK 2} + \text{BLOCK 3})$
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- **The maximum grade you can obtain in the recovery test is 6.9 (Pass).

Bibliography

- **Normative**
 - CTE (Tecnichal Buidling Code)
 - Accessibility Code of Catalonia - Decree 135/1995
 - TAAC tables. Interpretation and application of regulations
 - https://dretssocials.gencat.cat/ca/ambits_tematicas/accessibilitat/taules-taac/
 - Decree 141/2012, of 30 October, by which regulate the minimum conditions of habitability of the houses and the cédula of habitability
 - Law 18/2020 of 28 December on the facilitation of economic activity
- **Bibliography**
 - Learning resources of Twinmotion (Courses, TUTORIALS and WEBINARS)
- **<https://www.twinmotion.com/learning-resources>**
 - Diseño de interiores: Un manual. Autor, Francis D.K. Ching . Editorial, Gustavo Gili, SL
 - Color, espacio y estilo. Autor. Chris Grimley. Editorial, Gustavo Gili, SL
 - **Atlas de Detalles constructivos en rehabilitación.** Autor. Peter Beinhauer. Editorial, Gustavo Gili, SL
 - **[Guía de análisis del proyecto para la dirección de la ejecución de obra.](#)** Autor, Manuel Jesús Carretero Ayuso; Mateo Moyá Borrás . Editorial, Fundación MUSAAT
 - **Recomendaciones para la dirección de la ejecución de obra.** Autor, Mateo Moyá Borrás; Francisco José Forteza Oliver . Editorial, Fundación MUSAAT
 - **Estándares para la Dirección de la Ejecución de la Obra.** Autoras, Jerónimo Alonso Martín, David Arias Arranz, Enrique Alario Catalá, Mateo Moyá Borrás, Jorge Ledesma Ibáñez, Juan López-Asiain Martínez. Editorial, Consejo General de la Arquitectura Técnica de España (CGATE)
 - **Catalogo Soluciones constructivas en rehabilitación.** Autor: Instituto Valenciano de la edificación. Editorial: Generalitat Valenciana
 - **Atlas de Detalles constructivos en rehabilitación.** Autor. Peter Beinhauer. Editorial, Gustavo Gili, SL