

Course guide 210120 - RA II - Architectural Representation II

Last modified: 15/07/2024

Unit in charge: Teaching unit:	Barcelona School of Architecture 752 - RA - Departamento de Representación Arquitectónica.	
Degree:	DEGREE IN ARCHITECTU	RE STUDIES (Syllabus 2014). (Compulsory subject).
Academic year: 2024	ECTS Credits: 5.0	Languages: Catalan, Spanish

LECTURER

Coordinating lecturer:	FRANCISCO JAVIER GONZÁLEZ PÉREZ
Others:	Primer quadrimestre: MARC BARDAJI SIERRA - 1ST2 FRANCISCO JAVIER GONZÁLEZ PÉREZ - 1SMA, 1SM2 GUILLEM HARO BARCELÓ - 1SM2 DAVID MARTÍNEZ GÓMEZ - 1ST2 ALBERTO PEREZ BARROSO - 1SM2 JORDI SUBIRÓS BRUNET - 1ST2 FRANCISCO VALLS DALMAU - 1SMA
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HECTOR ZAPATA CEBRIAN - 2SM1

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

EAB1. Translation from Spanish slope EAB2. Translation from Spanish slope EAB3. Translation from Spanish slope EAB4. Translation from Spanish slope EAB5. Translation from Spanish slope EAB6. Translation from Spanish slope EAB10. Translation from Spanish slope EP17. Translation from Spanish slope

Generical:

CG7. Translation from Spanish slope

Transversal:

- CT1. Translation from Spanish slope
- CT3. Translation from Spanish slope
- CT5. Translation from Spanish slope
- CT6. Translation from Spanish slope
- CT2. Translation from Spanish slope
- CT4. Translation from Spanish slope
- CT7. Translation from Spanish slope



Basic:

CB1. Translation from Spanish slope CB2. Translation from Spanish slope CB3. Translation from Spanish slope CB4. Translation from Spanish slope

CB5. Translation from Spanish slope

TEACHING METHODOLOGY

Go to catalan or spanish version.

LEARNING OBJECTIVES OF THE SUBJECT

The subject will be organized through Project-Based Learning -and what we will call the action research process-, that is, learning to draw by projecting. With the aim of continuing to introduce students to architectural representation through six topics:

A- TOPOGRAPHY / FORM. Aspects related to shape, geometry and geo-location. Knowledge, use and manipulation of geometrically defined shapes and located in the territory / context.

B- SCALE: HUMAN / SPACE / TERRITORIAL. Aspects related to people, in two areas: 1-physical area (ergonomic, dimensional); 2-sensory area (perception, senses, movement). Explicitly relate elements to different scales (between 5:1 and 1:50,000).

C- CULTURE / HISTORY / SOCIETY. Social and cultural meaning of architecture. Representation and culture of the object and the site. D- CONSTRUCTION / TECHNOLOGY. Relationship between the parts and the whole. Dismantling and addition. De-construction -

Identification - Reconstruction. Processes, stages and sequences. Generative processes, transformations.

E- PHYSICAL REALITY AND ABSTRACT REPRESENTATION. Ability to interrelate and work together from physical reality (direct observation and personal data extraction) and representations or data that explain or describe realities that have not been visited or do not physically exist.

F- SUSTAINABILITY CRITERIA. Triple balance: Economic / Ecological / Social. Cross-cutting and explicit application of environmental and social criteria as a factor for evaluating proposals / interventions.

Specific learning objectives:

O1.- Understand and apply the fundamental principles of descriptive geometry to represent three-dimensional objects in two dimensions.

O2.- Develop spatial visualization skills to interpret and modify complex geometric designs, with an appropriate and personal style.

O3.- Use geometric tools and techniques to solve practical problems related to architecture, with control of architectural vocabulary and precision.

STUDY LOAD

Туре	Hours	Percentage
Hours large group	11,0	8.80
Guided activities	12,0	9.60
Self study	70,0	56.00
Hours small group	32,0	25.60

Total learning time: 125 h



CONTENTS

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Description:

In the subject of architectural representation II, the objective is to provide students with the tools and techniques necessary to solve descriptive geometry problems, also focusing on the different geometric representation systems. First, we will continue with the dihedral system, in which students will represent the architectural object in orthogonal projections, including plan, elevation and profile, and to solve problems of intersection of geometric volumes. Next, axonometric projections will be explored, allowing students to draw in axonometric projections, to better visualize and communicate the project. In the conical system, special emphasis will be placed on the creation of photomontages, using photographs of the real environment to integrate the design in a realistic way. This will include calculating the focal length and adjusting the angle of view to ensure accurate rendering. Students will also address the design of ramps and stairs, applying geometric and regulatory principles to guarantee the functionality and safety of the design. Finally, we will work with the topography of the place, interpreting and modifying topographic plans to adapt the project and condition it to the shape of the land, using geometric tools and techniques to make the necessary adjustments. This integrated approach will allow students to develop spatial visualization skills, technical communication and practical application of descriptive geometry knowledge in real architectural projects.

Full-or-part-time: 70h Self study : 70h

GRADING SYSTEM

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BIBLIOGRAPHY

Basic:

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- Gombrich, E. H. Arte e ilusión: estudio sobre la psicología de la representación pictórica. (2ª edició). Madrid: Debate, 2002. ISBN 8483069598.

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- Steegmann, E., i Acebillo, J. Las medidas en arquitectura. 2ª ed. rev. i act.. Barcelona: Gustavo Gili, 2008. ISBN 9788425222375.

- Taibo Fernández, Á. Geometría descriptiva y sus aplicaciones. (2ª edició). Madrid: Tébar, 2010. ISBN 9788473603478.

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- Zevi, B. Saber ver la arquitectura: ensayo sobre la interpretación espacial de la arquitectura. Barcelona: Apóstrofe, 1998. ISBN 8445500805.

RESOURCES

Other resources:



The materials and documents of the subject may be written indistinctly in any languages of instruction.