

## COURSE PROGRAM

### Academic Year 2024-2025

Identification and characteristics of the subject			
Code	501007	ECTS Credits	6
Name (Spanish)	Proyectos		
Name	Project development		
Degree	Grado en Edificación		
Centre	Escuela Politécnica (School of Technology)		
Semester	7	Character	Compulsory
Module	Specific		
Material	Technical Projects		
Lecturers			
Name	Office	e-mail	Web page
Juan Saumell Lladó	40 AT	jsaulla@unex.es	<a href="https://campusvirtual.unex.es/portal/">https://campusvirtual.unex.es/portal/</a>
Subject Area	Architectural Graphic Expression		
Department	Graphic Expression		
Coordinating lecturer	Juan Saumell Lladó		
Skills acquired *			
BASIC COMPETENCES			
CB1 - That students have demonstrated to possess and understand knowledge in an area of study that starts from the base of general secondary school, and they are in a level that, although supported by advanced textbooks, also includes some aspects that imply knowledge coming from the forefront of their field of study			
CB2 - That students know how to apply their knowledge to their work or vocation in a professional manner and have the competences that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study			
CB3 - That students have the ability to gather and interpret appropriate data (usually within their area of study) to make judgments that include a reflection on relevant issues of social, scientific or ethical nature			
CB4 - That students should be able to transmit information, ideas, problems and solutions to both specialized and non-specialized public			
CB5 - That students have developed essential learning skills to undertake further studies with a high degree of autonomy			
GENERIC COMPETENCES			
C3 - Carry out technical activities of calculation, measurements, valuations, appraisals and studies of economic viability, and surveys, inspections, pathology analysis and others, write the reports, opinions and corresponding technical documents and carry out surveys of plans in lots and buildings.			
C4 - Prepare technical projects and perform the direction of building works within the scope of their legal capacity.			

C6 - Managing the use, conservation and maintenance of buildings by drafting the necessary technical documents, preparing studies on the life cycle of materials, construction systems and buildings, and managing the method of demolition and construction waste.
C7 - Technically guide in the manufacturing processes of materials and elements used in the construction of buildings.
<b>CROSS-CURRICULAR COMPETENCES</b>
T1 – Capacity to analyse and synthesise
T11 – Capacity of critical reasoning.
T12 – Capacity of ethical compromise.
T13 – Capacidad to work in a multi-disciplinary team.
T2 – Capacity to solve problems.
T21 - Leadership.
T3: Capacity to plan and organize
T4: Capacity to make decisions
T5 – Capacity to manage information.
T6 – Oral and written knowledge of native language (spanish).
T7 – Foreign language knowlwdge (english).
T9 – Capacity to work in a team.
<b>SUBJECT-AREA RELATED COMPETENCES</b>
CE21 - Ability to analyze, design and make solutions that arrange universal accessibility in buildings and their surroundings.
CE28: Ability to draw up architectural documents and plans of technical nature which do not require an architectonic Project document, as well as decoration and demolition projects
CE29: Ability to draw up documents which are part of executive projects elaborated in a multi-disciplinary form
<b>Themes and syllabus</b>
<b>Brief description of the syllabus</b>
<p>To develop building and construction technical projects which do not require an architectonic Project document. This also includes demolition and decoration projects.</p> <p>To design practical solutions in order to make easy universal accessibility to buildings and their surroundings.</p> <p>To develop building evacuation projects.</p> <p>To draw up documents as a part of executive projects made in a multi-disciplinary form.</p>
<b>Course Syllabus</b>
Theme 1. Non architectural Project Contents theme 1: Regulatory framework. Variety of projects. Phases. Documents
Theme 2. Communication and expression: language and drawing Contents theme 2: Transversal skills. Writings and drawings
Theme 3. Previous studies Contents theme 3: Place knowledge. Auxiliary resources
Theme 4. Data collection. Methods and techniques Contents theme 4: Sketch. Scale. Architectonic survey
Theme 5. Compulsory regulation. Documental sources Contents theme 5: Urban, sector, regional and local regulations
Theme 6. Technical viability analysis Contents theme 6: Compatibility. Accessibility to buildings and their surroundings. Use. Fire safety measures and emergency evacuation

Theme 7. Integration of the different Project sections. Document coherence Contents theme 7: The techniques, the sections of the Project and its chapters
Theme 8. Document procedures Contents theme 8: Ownership. Technical office (Technical Projects). Affiliation to Professional unions. City council
Theme 9. Demolition project Contents theme 9: Phases. Waste construction and demolition management (RCD)
Theme 10. Decoration project Contents theme 10: Constructive detail. Building compatibility

**Educational activities**

Student hours of work per theme		Classroom		Monitoring activity	Non-classroom
Theme	Total	LG	L	PT	PS
1	10	1	4,5	0	4.5
2	10	1	4,5	0	4.5
3	10	1	4,5	0	4.5
4	20	1	4,5	1,5	13
5	10	1	4,5	0	4.5
6	30	1	4,5	4	20.5
7	10	1	4,5	0	4.5
8	10	1	4,5	0	4.5
9	20	2	4,5	1	12.5
10	16	1	4,5	1	9.5
Evaluation of the whole	4	4			
<b>TOTAL</b>	<b>150</b>	<b>15</b>	<b>45</b>	<b>7.5</b>	<b>82.5</b>

LG: Large Group (85 students).  
 L: Seminar/Laboratory (practice laboratory or field = 15; O: computer laboratory sessions = 20, S: problema classes or seminars or case studies = 40).  
 PT: Programmed Tutorials (educational monitoring, in the form of ECTS tutorials).  
 PS : Personal study and individual and group work, and bibliography research.

**Evaluation systems**

Master class  
 Problem solving in a team or individually  
 Interactive problem solving between the teacher and the student  
 Explanation in small groups  
 Personal study and bibliography research

**Learning outcomes**

Writing and drawing technical projects of building and construction, with no need of architectural Project document. Also demolition and decoration projects.  
 Designing and implementating solutions that could supply all-purpose accessibility to buildings and their surroundings.  
 Designing emergency and evacuating projects.  
 Writing and drawing documents that form part of the implementation of multi-disciplinary projects.

**Marking system**

Continuous assessment:  
 Written and drawing exercises applying theory 50% (minimum grade 3 to 10)  
 Practical exercises 40%  
 Attendance and participation 10%

The exercises will combine: Written exams of theory, Practical exams, Development of practical cases, Continuous evaluation, Solving problems both self-sufficient and in a team, Personal study and bibliography search.

Final and global evaluation:

Written exercises and applied theory drawings 40%

Practical exercises 60%

The deadline to choose this final and global evaluation, resigning continuous assessment, will be during the first quarter of lessons period. The request will be applied through Campus Virtual specific space

### Bibliography and other resources

Ley 11/2014 (DOE 12/12/2014) de Accesibilidad Universal de Extremadura

Ley (BOE 06/11/1999) de Ordenación de la Edificación

Código Técnico de la Edificación (BOE 28/03/2006 and updates and comments up to 2024)

Real Decreto 842/2013 (BOE 23/11/2013) de clasificación de los productos de construcción y de los elementos constructivos en función de sus propiedades de reacción y de resistencia frente al fuego

Ley 10/1998 (BOE 22/04/1998) de residuos en España

Orden MAM 304/2002 (BOE 19/02/2002) valorización, eliminación y lista de residuos

Real Decreto 105/2008 (BOE 13/02/2008) de gestión de residuos en España

NOTE: The regulations are written in Spanish language and we check the main points in English and with some equivalent EU regulations

### Other resources

Normas UNE y NTE

Orden TMA/851/2021, de 23 de julio, por la que se desarrolla el documento técnico de condiciones básicas de accesibilidad y no discriminación para el acceso y la utilización de los espacios públicos urbanizados

Catálogo de elementos constructivos (2007)

NOTE: The regulations are written in Spanish language and we check the main points in English and with some equivalent EU regulations

### Tutorial timetable

Programmed tutorials will be published in September and announced in class.

Free access tutorials:

Provisional: will be published in the final weeks of September and announced in class.

Tutorial activities will take place on 1st floor Sunrise side. Building Pavilion. Polytechnic School. Av de las Letras. University Campus

### Recommendations

Attendance to 80% minimum of classroom and monitoring activities.

Tutorial activities do not replace the need of attendance. Attendance is not compulsory but is advisable, especially to pass the subject during the course (continuous assessment).

It is advisable to begin, if not complete, the drawing and writing practice exercises in the classroom.

The inability to meet the deadlines will affect marks.

Control and final exams will focus on theoretical and practical contents covered in classroom.