



Universitat de Lleida

DEGREE CURRICULUM  
**TECHNICAL OFFICE**

Academic year 2014-15

## Subject's general information

<b>Subject name</b>	Technical Office
<b>Code</b>	101427
<b>Semester</b>	2n Q Continuous Evaluation
<b>Typology</b>	Mandatory
<b>ECTS credits</b>	9
<b>Theoretical credits</b>	0
<b>Practical credits</b>	0
<b>Office and hour of attention</b>	Apply for a meeting
<b>Department</b>	Computer Science and Industrial Engineering
<b>Modality</b>	Presencial
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.
<b>Language</b>	Catalan
<b>Degree</b>	Degree in Architectural Technology
<b>Office and hour of attention</b>	Apply for a meeting
<b>E-mail addresses</b>	acastell@diei.udl.es xrodriguezp@diei.udl.cat

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## Subject's extra information

Subject offered during the 2nd semestre of the 4th course of the degree. It corresponds to the module "Specific training", more precisely to the subject "Technical projects".

## Learning objectives

Objectives:

- Writing with appropriate technical language. Good spelling and grammar. Correct speaking with adequate technical language. Capability to structure, manage and transmit ideas and concepts.
- Teamwork, leadership and collaborative work.
- Correct use of informatics tools for the implementation of projects and public presentations.
- Adequate technical knowledge.
- Monitoring the administrative process of a project.
- Definition and scope of the functions of each agent of the building within the construction process, especially of technical architect.
- Management of personal time to perform all assigned tasks within the time period.
- Applying sustainability criteria in the construction process.
- Adoption of realistic assumptions for the construction process.
- Determine unknown parameters by crossing information.

## Competences

Strategic Competences:

UdL1 Appropriate skills in oral and written language.

UdL3 Mastering ICT's.

Cross-disciplinary Competences:

EPS1. Capacity to solve problems and prepare and defence arguments inside the area of studies.

EPS2. Capacity to gather and interpret relevant data, within the area of study, to judge and think about relevant subjects of social, scientific and ethical nature.

EPS6. Capacity of analysis and synthesis.

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

EPS8. Capacity of planning and organizing the personal work.

EPS9. Capacity for unidisciplinary and multidisciplinary teamwork.

EPS11. Capacity to understand the needs of the user expressed in a no technical language.

EPS13. Capacity to consider the socioeconomic context as well as the sustainability criteria in engineering solutions.

### Specific Competences:

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.

GEE38. Capacity to analyse executive projects and its use in the execution of works.

GEE39. Knowledge of the roles and responsibilities of the agents that take part in the building process and his professional or business organisation. The administrative procedures, of management and processing.

GEE40. Knowledge of the professional organization and the basic procedures in the field of building and promotion.

GEE41. Presentation and defence in front of a university court of a Bachelor's project, based in an exercise of integration of the formative contents received and the skills acquired.

## Subject contents

### CHAPTER 1. Project Morphology

#### 1.1 Project Morphology

#### 1.2 Specifications

#### 1.3 Agents involved

#### 1.4 Project regulation

#### 1.5 Example 1: Refurbishment project

#### 1.6 Example 2: New project

### CHAPTER 2. Building and Uses

#### 2.1 Residential use

#### 2.2 Fire Station

#### 2.3 Museum

#### 2.4 Primary Health Care Centre

#### 2.5 Visit to a Museum

#### 2.6 Visit to a Fire Station

### CHAPTER 3. Refurbishment

#### 3.1 General concepts

#### 3.2 Applicable regulation and heritage

### CHAPTER 4. Sustainability

- 4.1 General concepts
- 4.2 Sustainable Construction Criteria
- 4.3 Implementation in Europe and Spain
- 4.4 Energy savings and efficiency
- 4.5 Sustainable materials and optimization
- 4.6 Water treatment
- 4.7 Water consumption and saving
- 4.8 Health constrains

## Development plan

Dates (weeks)	Description	Face to face activities	Hours of work (In class)	Autonomous activity	Hours of work (Autonomous)
	Subject Presentation Groups organization	Subject and groups organization	4	Study and project development	6
	Theory - Project Morfology	Lecture X. Rodríguez	4	Study and project development	6
	Theory - Project Morfology	Lecture X. Rodríguez	4	Study and project development	6
	Theory - Building and Useds	Lecture X. Rodríguez	4	Study and project development	6
	Theory - Building and Useds	Lecture X. Rodríguez	4	Study and project development	6
	Practice (mandatory) Visit to a show case	Visit to a show case A. Castell / X. Rodríguez	4	Study and project development	6
	Practice (mandatory) Visit to a show case	Visit to a show case A. Castell / X. Rodríguez	4	Study and project development	6
	Theory - Sustainability	Lecture A. Castell	4	Study and project development	6
	Theory - Rehabilitation	Lecture X. Rodríguez	4	Study and project development	6
	Practice (mandatory) Visit to a show case	Visit to a show case A. Castell / X. Rodríguez	4	Study and project development	6
	Practice (mandatory) Visit to a show case	Visit to a show case A. Castell / X. Rodríguez	4	Study and project development	6
	Workshop Rehabilitation	Workshop X. Rodríguez	4	Project Development	6
	Theory - Sustainability	Lecture A. Castell	4	Study and project development	6
	Theory - Rehabilitation	Lecture X. Rodríguez	4	Study and project development	6
	Workshop Rehabilitation	Workshop X. Rodríguez	4	Project Development	6
	Writen exam 1	Evaluation	2	Study and exercices	4
	Practice (mandatory) 1st presentation	Presentation A. Castell / X. Rodríguez	4	Project Development	6
	Theory - Sustainability	Lecture A. Castell	4	Study and project development	6

Dates (weeks)	Description	Face to face activities	Hours of work (In class)	Autonomous activity	Hours of work (Autonomous)
	Workshop Rehabilitation	Workshop X. Rodríguez	4	Project Development	6
	Workshop Sustainability	Workshop A. Castell	4	Project Development	6
	Theory - Sustainability	Lecture A. Castell	4	Study and project development	6
	Workshop Rehabilitation	Workshop X. Rodríguez	4	Project Development	6
	Practice (mandatory) 2nd presentation	Presentation A. Castell / X. Rodríguez	4	Project Development	6
	Workshop Rehabilitation	Workshop X. Rodríguez	4	Project Development	6
	Workshop Sustainability	Workshop A. Castell	4	Project Development	6
	Workshop Rehabilitation	Workshop X. Rodríguez	4	Project Development	6
	Workshop Sustainability	Workshop A. Castell	4	Project Development	6
	Workshop Rehabilitation	Workshop X. Rodríguez	4	Project Development	6
	Workshop Sustainability	Workshop A. Castell	4	Project Development	6
	Practice (mandatory) 3rd presentation	Presentation A. Castell / X. Rodríguez	4	Project Development	6
	Written exam 2	Evaluation	2	Study and exercises	4
	Written exam - Reexam	Re-evaluation	2	Study and exercises	4

## Evaluation

Evaluation activities (criteria)	%	Dates	I/G
Written exam T1 ( $\geq 4$ )	10	Week 9	Individual
Written exam T2 ( $\geq 4$ )	10	Week 16/17	Individual
1st Project Evaluation (Adaptation and Implications)	15	Week 10	Group
2nd Project Evaluation (Design proposals)	25	Week 13	Group
3rd Project Evaluation (Executive Project)	40	Week 16	Group

## Bibliography

### Recommended bibliography

- Preciado Barrera, C. (1994). Oficina técnica: teoría y tecnología del proyecto. Cáceres: Universidad de Extremadura.
- Gómez Pompa, P. y Gómez Pérez, M. (1994). Oficina técnica: proyectos, dirección y control de obras. Cáceres: Servicio de Publicaciones de la Universidad de Extremadura.
- Trueba Jainaga, J.I., Levenfeld González, G. y Marco Gutierrez, J.L. (1991). Teoría de proyectos: morfología del proyecto. Madrid 6ª Edición.
- Sevilla López, J.M. (2000). Manual para la redacción de proyectos de construcción en la administración pública. Madrid: CIE Inversiones Editoriales DOSSAT 2000, cop. 2000.
- Pellicer Armiñana, E., Sanz Benlloch, A., Catalá Alís, J. (2004). El Proceso proyectoconstrucción. Valencia: Editorial de la UPV, DL 2004.
- CTE – Código Técnico de la Edificación, Ministerio de Vivienda, Gobierno de España, 2006.
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- Castell, A. i Cabeza, L.F. Construcció Sostenible. Quaderns EPS
- Neila González, F.J. Arquitectura bioclimática: un entorno sostenible
- Berge, B. The Ecology of Building Materials, 2000. ISBN: 978-0-7506-5450-0
- Cuchí, A. Arquitectura i sostenibilitat, 2005. ISBN: 84-8301-839-X
- Calkings. Materials for Sustainable Sites, 2009. ISBN: 978-0-47-13455-9