

# DEGREE CURRICULUM BACHELOR'S THESIS

Coordination: GREGORIO LOPEZ, EDUARD

Academic year 2023-24

# Subject's general information

Subject name	BACHELOR'S THESIS					
Code	102161					
Semester	UNDEFINED					
Typology	Degree		Course	Character	Modality	
	Bachelor's Degree in Energy and Sustainability Engineering		4	COMPULSORY	Attendance- based	
Course number of credits (ECTS)	15					
Type of activity, credits, and groups	Activity type	TFG				
	Number of credits	15				
	Number of groups	1				
Coordination	GREGORIO LOPEZ, EDUARD					
Department	INDUSTRIAL AND BUILDING ENGINEERING					
Important information on data processing	Consult this link for more information.					
Language	Catalan, Spanish and English					

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
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## Subject's extra information

You will find all the information about the **Bachelor's Thesis** in the grade web.

## Learning objectives

Bachelor's thesis is a subject which is included in the syllabus of every bachelor's degree. In case of bachelor's degree in Energy and Sustainability Engineering, bachelor's thesis (BT) has 15 ECTS, it has to be done in the last academic year and it comprises work that every student (or a group of students) carries out under the supervision of a director or two co-directors. This work allows students to show their acquired knowledge and competences associated with the bachelor's degree in an integrated way. The learning results are:

- Organize and manage projectes properly.
- Schedule and organize personal work properly.
- Understand user needs expressed in non-technical language.
- Consider the socioeconomic context as well as sustainability criteria in engineering solutions.
- Express themselves correctly.

# Competences

#### Basic

- CB2. That students know how to apply their knowledge to their work or vocation in a professional way and
  possess the skills 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 relevant data (usually within their area of study) to make judgments that include a reflection on relevant issues of a social, scientific or ethical nature.
- CB4. That students can transmit information, ideas, problems and solutions to a specialized and nonspecialized public
- CB5. That the students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

#### General

 CG18. To have knowledge and skills to organize and manage projects and know the organizational structure and functions of a project office.

#### **Specific**

• CE20. To be able to develop an original and individual project, and to present and defend it in front of a university court, consisting of a project in the field of energy and sustainability of a professional nature, in which all the competences are integrated and synthesized.

#### **Cross-disciplinary**

- CT2. Master a foreign language, especially English.
- CT5. To acquire essential notions of sicentific thinking.

# Subject contents

#### **Proposal**

A proposal of the bachelor's thesis may be carried out in the following ways:

A student's proposal.

- A department's proposal.
- Proposals carried out within the framework of the convention of cooperation between university and enterprise.
- Projects carried out within the framework of the mobility offered at UdL.

A proposal must be approved by the director (or the co-director) and the coordinator of the degree. Document to formalize the proposal.

# Methodology

Every bachelor's thesis is directed by a director or two co-directors. The director or one of the codirectors must be a teacher who belongs to a teaching department of the same degree.

An external teacher may be proposed as a co-director, in which case a member of the UdL teaching staff must perform as co-director.

### Development plan

#### **Enrolment**

The enrolment allows a student to apply to reading his/her bachelor's thesis in a call during the academic year.

Enrolment may be processed during two periods along the academic year:

- At the beginning of the first quarter.
- At the beginning of the second quarter.

Documents, deadlines and administrative procedures associated to the development of the TFG can be found on the EPS website.

#### **Evaluation**

The bachelor's thesis will be assessed following continuous assessment methodology. The final mark will be based on the marks of the following four items:

- Initial report (10%) which shows assimilation of the aims and context of the BT to carry out. It is assessed by the director.
- Follow-up report (10%) which presents evolution of the BT and decisions made. It is assessed by the
  director
- Final document of the BT (50%). It is assessed by the director.
- Presentation and defense of the BT in front of an examination committee (30%).

The student will present his/her project and defend it publically answering committee's questions.

# Bibliography

The director or co-directors of the Bachelor's thesis will suggest the required bibliography