

Academic Year/course: 2022/23

## 69765 - Master's thesis

### Syllabus Information

---

**Academic Year:** 2022/23

**Subject:** 69765 - Master's thesis

**Faculty / School:** 100 - Facultad de Ciencias

**Degree:** 627 - Master's Degree in Circular Economy

**ECTS:** 30.0

**Year:** 02

**Semester:** First semester

**Subject Type:** Master Final Project

**Module:**

## 1. General information

### 1.1. Aims of the course

The main aim of the Master's Thesis is to assess the skills acquired throughout the master's course.

For this, the Master's Thesis proposals will be prepared according to a work plan, related to Circular Economy, which highlights the knowledge, skills and aptitudes acquired by the student. In this work, the student must demonstrate that he is capable of manage his/her time, search and manage bibliographic information related with the work topic and make the measures, operations, or protocols required for information acquirement. The work will be reflected in a report, which will be defended before a specialised committee.

These approaches and aims are aligned with Sustainable Development Goal (SDG) No. 12 (Responsible Consumption and Production) of the United Nations 2030 Agenda (<https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to a certain extent to its achievement.

### 1.2. Context and importance of this course in the degree

The Master's Thesis is a student's work in which the skills acquired throughout the Master's are applied and which is reflected in a report that is defended before a specialised committee.

Its essential characteristics are the following:

- It constitutes an autonomous and personal work of the student, corresponding to a dedication of 30 ECTS credits.
- Requires the application of the knowledge, skills, aptitudes and attitudes acquired by the student throughout the Master's course.
- It is reflected in a written memory that includes enough elements of personal creation and properly cites all the sources consulted and may be accompanied by annexes with supplementary information.
- It is defended by the student individually in a public session in front of a committee.

### 1.3. Recommendations to take this course

The Master's Thesis consists of the completion of a report or project in which the knowledge, skills, aptitudes and attitudes acquired by the student throughout the degree are revealed. The modalities that the works may take are, among others, the following:

- Specific academic works.
- Specific work carried out in the laboratory.
- Specific work carried out as a result of internships in companies or institutions.
- Equivalent work carried out as a result of a stay at another Spanish or foreign University, through an agreement or mobility programme.

It is recommended to follow the instructions of the director of the Master's Thesis.

## 2. Learning goals

## 2.1. Competences

Upon passing the course, the student will demonstrate having acquired the following skills:

### BASIC COMPETENCES

CB6 - Have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context.

CB7 - Can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.

CB8 - Have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements.

CB9 - Can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and nonspecialist audiences clearly and unambiguously.

CB10 - Have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

### GENERAL COMPETENCES

CG1 - Obtain information in Spanish and English using information technologies efficiently

CG2 - Manage, critically analyse and synthesise information

CG3 - Critically reflect in a systemic way and using causal relationships

CG4 - Formulate, analyse, evaluate and compare in a multidisciplinary way new or alternative solutions for different problems

CG5 - Work in interdisciplinary groups

CG6 - Transmit information efficiently through information and communication technologies

CG7 - Develop management skills (decision making, goal setting, problem definition, design, and evaluation)

CG8 - Properly manage available resources on time

### SPECIFIC COMPETENCES

CE1 - Manage the vocabulary and concepts necessary for learning the fundamentals of the Circular Economy

CE2 - Use the specific vocabulary and terminology of Circular Economy

CE6 - Apply the principles of Circular Economy management

CE8 - Formulate proposals to facilitate the transition from the Linear to the Circular Economy

## 2.2. Learning goals

The expected learning outcomes for the Master's Thesis are:

1. Be able to develop individual and original work
2. Be able to write and publicly defend a research work

## 2.3. Importance of learning goals

These learning outcomes prove that the student has acquired the status of an expert aware of the complexity of managing the flows of materials and energy and that they are equipped with the skills to implement the principles of Circular Economy in companies as well as public and private institutions.

## 3. Assessment (1st and 2nd call)

### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

The procedure to follow throughout the Master's Thesis is included in the corresponding Guidelines, available on the website of the Master's Degree in Circular Economy of the Faculty of Sciences (<https://ciencias.unizar.es/master-en-economia-circular>).

Once the report of the Final Master's Project has been deposited, the student will defend it before a committee. This committee will assess the work by applying the following criteria.

1. Report of the Master's Thesis

In this section, the rigor of the different chapters of the report, the work methodology and the quality of the results (always considering the student's level of competence) will be judged, as well as the adequate written presentation, taking into account that it is an autonomous work that student performs under supervision. This section will be valued with 50 % of the final grade.

2. Presentation of the Master's Thesis

In this section, the ability to concisely and precisely convey the objectives, results and conclusions of the Master's Thesis will be judged. Likewise, it will be judged how the student defends her work according to the knowledge and skills previously

acquired in her training. This section will be valued with 40 % of the final grade.

### 3. Report of the Director of the Master's Thesis

In this section, the indications of the Director of the Master's Thesis on the work developed by the student will be valued. This section will be valued with 10 % of the final grade.

The qualification will be carried out in a similar way to that of the rest of the Master's subjects, indicating the quantitative and qualitative qualification. In the event that the Master's Thesis is classified as Failed, the Committee must issue a report detailing the deficiencies of the Final Master's Project, both methodological and content, that have led to such consideration, indicating the modifications that will be necessary to carry out for its defense in another call.

Detection of plagiarism in the report may lead to a Fail grade.

In the qualification of the Master's Thesis, for the mention "Matricula de Honor" the limitation of 5 % of the students enrolled does not apply.

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

The aim of the Master's Thesis is to enable students to apply and develop a range of skills and competences acquired throughout the Degree. Students are expected to show their competence in planning, writing and defending a piece of research on a topic related with Circular Economy. This process is mainly based on the student's autonomous work but his/her progress will be supervised by a supervisor in tutorials.

### 4.2. Learning tasks

The student is expected to attend an induction section in which guidelines for initial dissertation preparation will be provided.

To prepare the dissertation draft, the student is expected to engage in autonomous work (use of the library, reviewing the literature, writing the draft of the dissertation and revising the draft).

Additionally, the student can set up regular appointments for office hour consultation.

### 4.3. Syllabus

Each student will choose a subject for his/her dissertation from one of topics offered by all Departments involved in Master's teaching.

### 4.4. Course planning and calendar

Schedule of basic activities related with the Master's Thesis:

1. Inscription on the course. July or September terms.
2. Supervision agreement. Before 15 September.
3. Master's Thesis assignment. Tentative assignment: 20 September. Definitive assignment: 20 October.
4. Presentation. Terms of February, June, July, September, or December.

### 4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=69765>