

## 69732 - Master's Dissertation

### Syllabus Information

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**Academic year:** 2024/25

**Subject:** 69732 - Master's Dissertation

**Faculty / School:** 110 - Escuela de Ingeniería y Arquitectura

**Degree:** 633 - Master's Degree in Biomedical Engineering

**ECTS:** 30.0

**Year:** 2

**Semester:** First semester

**Subject type:** Master Final Project

**Module:**

### 1. General information

The master's final project (MFP) is a 30 ECTS subject.

The objective of the MFP is to train the student to carry out, present and defend a comprehensive project in Biomedical Engineering, as a demonstration and summary of the skills acquired in the master's degree. The student is expected to carry out an original work, under the supervision of a teacher, in a complete way, including the production of the work, presentation of results, discussion of the same, elaboration of a report and public defence.

In accordance with the commitment of the 2030 Agenda, the Master's Dissertation will explicitly show its direct contribution to the SDGs of the United Nations 2030 Agenda. In section 6 of this guide, the most frequent SDGs to which the course contributes are listed.

Passing this subject entitles the student to obtain the title of Master's Degree in Biomedical Engineering.

### 2. Learning results

In order to pass this subject, students must prove they are able to:

- Produce, present and defend individually an original exercise of professional character in the field of Biomedical Engineering as a demonstration and summary of the competences acquired in the master's degree.
- Apply the acquired competencies to the performance of a task in an autonomous manner.
- Identify the need for continuous learning and develop a strategy to carry it out.
- Plan and use the information necessary for a project or academic work based on a critical reflection on the information resources used.
- Design experiments and measurements to verify hypotheses or validate the operation of equipment, processes, systems or services in the field of Biomedical Engineering. Select the appropriate equipment or software tools and perform advanced analysis with the data.
- Communicate clearly and efficiently in oral and written presentations on complex topics, adapting to the situation, the type of audience and the objectives of the communication. Give an oral presentation in Spanish or English and respond to questions from the audience.

### 3. Syllabus

The program of the work to be carried out as MFP, as well as the most appropriate typology for its development, is mutually agreed between the student and their director.

The MFP proposal is assessed by the Academic Committee of the degree, which may approve it, reject it or request additional information about it.

The modifications requested with respect to an approved proposal must again have the favourable report of the Academic Committee of the master's degree. The MFP proposal, once approved, will remain in effect as long as the student, with the approval of the director, does not expressly request its modification or cancellation.

Quality of public presentation. The presentation of objectives, exposition, quality and ability to answer questions from the board of examiners will be valued.

### 4. Academic activities

The student must agree with their MFP director on the training activities, which may consist of academic work, tutoring sessions, evaluation of the follow-up of the work done, depending on the proposed topic and its scope.

Regular meetings will be held to follow up on the work and solve any doubts.

### 5. Assessment system

The evaluation of the MFP will be based on the following aspects:

- the quality and depth of the work itself, in accordance with the scope and objectives set forth in the proposal and the deposit made by the student, and considering the workload foreseen in the degree's verification report.
- the assessment made by its director, co-directors and, if applicable, the presenter in their report
- the public presentation of the work.

After the defence of the MFP, the members of the board of examiners must issue an individual evaluation report, from which the final grade will be assigned.

In the case of a failing evaluation of the MFP, the board of examiners must issue a report detailing the deficiencies, both methodological and of content, that justify this grade, indicating the modifications that must be made to the work, and a new defence will be carried out.