Course guide  
340611 - TRFM-R3R40 - Master's Thesis

Unit in charge: Vilanova i la Geltrú School of Engineering
Teaching unit: 340 - EPSEVG - Vilanova i la Geltrú School of Engineering.
Degree: MASTER’S DEGREE IN AUTOMATIC SYSTEMS AND INDUSTRIAL ELECTRONICS (Syllabus 2012). (Project subject).

Academic year: 2023  ECTS Credits: 15.0  Languages: Spanish

LECTURER

Coordinating lecturer: Ramon Guzmán Solà

Others:

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

The Master’s Final Project (TFM) is focused on enabling the student to carry out a technical project related to the master’s theme. The main objectives include the following:

1) Identify a theoretical-technical problem and proceed with its solution.
2) Contribute with technical improvements to products already on the market.
3) Ability to write technical texts appropriately.
4) Ability to make presentations in public.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided activities</td>
<td>45,0</td>
<td>10.00</td>
</tr>
<tr>
<td>Self study</td>
<td>405,0</td>
<td>90.00</td>
</tr>
</tbody>
</table>

Total learning time: 450 h

CONTENTS

Engineering Project

Description:
Phases and concept of preliminary project, project, and feasibility.

Full-or-part-time: 35h
Guided activities: 5h
Self study : 30h
## Technical documentation

**Description:**
Identify information needs and use collections, spaces and services to design and execute appropriate research in the thematic area.

**Full-or-part-time:** 35h  
Guided activities: 5h  
Self study: 30h

## Project Management

**Description:**
Carry out work based on basic guidelines, deciding how much time to dedicate to each section, including personal contributions and expanding sources of information. Assess the economic cost of the different tasks included in the work.

**Full-or-part-time:** 35h  
Guided activities: 5h  
Self study: 30h

## Environmental and health and safety aspects of the project

**Description:**
Ability to analyze and assess the social and environmental impact.

**Full-or-part-time:** 35h  
Guided activities: 5h  
Self study: 30h

## Communication in projects

**Description:**
Write texts with the appropriate structure for the communication objectives.

**Full-or-part-time:** 35h  
Guided activities: 5h  
Self study: 30h

## Standardization and regulation

**Description:**
Know and apply specifications, regulations, and rules.

**Full-or-part-time:** 90h  
Guided activities: 5h  
Self study: 85h
Elaboration of a final thesis as an integrative or synthesis exercise

Description:
Realization of a project within the field of specific technologies of industrial design engineering of a professional nature in which the skills acquired throughout the studies are synthesized and integrated.

Full-or-part-time: 75h
Guided activities: 5h
Self study : 70h

Preparation of evaluable activities

Description:
Prepare the presentation of texts and other material for the public exhibition of the work carried out, taking into account the approach of appropriate strategies and means.

Full-or-part-time: 105h
Guided activities: 5h
Self study : 100h

Defense of the TFG

Description:
Preparations and public defense before the assigned university court.

Full-or-part-time: 5h
Guided activities: 5h

GRADING SYSTEM

Assessment based on the presentation of a project and a public exhibition of the work carried out before an assigned university panel. The evaluation will take into account:
- Individual work
- Written and oral presentation of the TFG before a court that will evaluate the skills acquired, knowledge and skills

EXAMINATION RULES.

In order to be able to defend the work before the assigned court, the final review and authorization by the teacher will be required director of the final report.
The work must be presented according to the standardization established by the School. For this purpose, the student will find everything the information and templates in the TFE section of the School’s website (https://www.epsevg.upc.edu/ca/curs-actual/tef).