

Academic Year: (2023 / 2024)

Review date: 24-04-2023

Department assigned to the subject: Physics Department

Coordinating teacher: TORRONTEGUI MUÑOZ, ERIK

Type: Master Final Project ECTS Credits : 12.0

Year : 2 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Passed all the credits except the Work Internship.

OBJECTIVES

- Apply the knowledge, competencies and technical abilities learnt during the program to a specific technological problem.
- Present results and conclusions in a concise and convincing manner

DESCRIPTION OF CONTENTS: PROGRAMME

The Master's Thesis is organized around a specific application or development of a quantum technology carried out by the student individually in the context of a scientific or engineering problem or challenge.

A list containing a sufficiently large number of projects deemed suitable for a Master Thesis will be collected and made known to the students every year. These projects could be carried out either in any of the UC3M Departments involved in the program, at CSIC or at private companies or research centers that agree with the program directorship to serve as hosts. Students will be able to elect among these projects according to their preferences and interest. Projects will finally be awarded in the order dictated by the students' academic performance of the previous year. In addition, specific projects proposed by a student-tutor tandem may also be allowed if specifically approved by the director of the program. All students will be provided with guidance and follow-up sessions throughout the Master Thesis.

Among the tasks to carry out by the student it is included:

- Compilation and analysis of information related to the Master's Thesis
- Development of Master's Thesis
- Preparation of the Final Document
- Individual defense of the Master's Thesis

LEARNING ACTIVITIES AND METHODOLOGY

LEARNING ACTIVITIES

- Individual student work
- Follow-up of the TFM
- Final evaluation of the TFM

METHODOLOGY

- MD2: Critical reading of texts recommended by the professor of the subject: articles, reports, manuals and/or academic articles, either for later discussion in class, or to broaden and consolidate knowledge of the subject.
- MD3: Resolution of practical cases, problems, etc... raised by the teacher individually or in a group
- MD4: Presentation and discussion in class, under the moderation of the teacher, of issues related to

the content of the subject, as well as practical cases
- MD5: Preparation of work and reports individually or in groups

ASSESSMENT SYSTEM

Master's Thesis (TFM) will consist of the realization of a comprehensive project or work of original research in the field of Quantum Technologies and Engineering. This is an individual work that will be defended in public in front of a technical panel. TFM summarizes the skills acquired by the student upon completion of the master program.

There is a specific assessment matrix that will be used by the panel members.

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BASIC ELECTRONIC RESOURCES

- . Información para la elaboración TFM: <https://uc3m.libguides.com/TFM>