

Course guide

230740 - IRI - Introduction to Research and Innovation

Last modified: 31/05/2022

Unit in charge: Barcelona School of Telecommunications Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering.

Degree: MASTER'S DEGREE IN ELECTRONIC ENGINEERING (Syllabus 2022). (Optional subject).

Academic year: 2022 **ECTS Credits:** 10.0 **Languages:** English

LECTURER

Coordinating lecturer: Cap d'estudis del Màster/ Jefe de estudios del Máster / Head of studies of the master

Others:

PRIOR SKILLS

This subject is oriented to students that have demonstrated the highest levels in their academic development. For this reason, a minimum performance of the student along his studies in the master will be required. In particular, this subject can be enrolled only by students whose ratio of passed subjects respect to enrolled ones is higher than 90 %. Typically, a maximum of 5 students per semester will be admitted in the subject. If there are more applications, students will be prioritized by their average qualifications in the Master. Additionally, a description of the project must be sent to the Master's Academic Coordinator.

TEACHING METHODOLOGY

- Application classes
- Laboratory practical work
- Group work
- Individual work
- Exercises
- Oral presentations

LEARNING OBJECTIVES OF THE SUBJECT

Learning objectives of the subject:

The objective of this course is to introduce the student into the scientific research methodologies. In this regard, and under the supervision of a research advisor, the student will carry out a research project in the area of Electronic Engineering.

If the advisor is not a UPC member, a co-advisor belonging to UPC academic staff must be proposed. Both the advisor and co-advisor must hold a PhD degree.

Learning results of the subject:

- To provide the ability of analysing the state of the art of a research subject.
- To provide the ability of formulating hypothesis, propose models and/or experimentally validate any of those.

Planning of Activities:

- The student must sign up within the allocated normal period for enrolment of the MEE.
- Before enrolment the student must provide to the Academic coordinator of MEE a form with the acceptance of the advisor (and co-advisor if this is the case) specifying the title and a brief description of the contents of the work to be performed.
- An evaluating committee will be assigned to the student to present the research results. The evaluation must be performed before the final deadline for the submission of grades within the same semester.



CONTENTS

It will depend on the specific contents of the proposal

Description:

It will depend on the specific contents of the proposal

Full-or-part-time: 250h

Self study : 250h

GRADING SYSTEM

- The evaluation committee will be composed of three professors belonging to a PhD program at UPC.
- The student will prepare a 6-10 pages report in the form of a journal research paper, and will make it available to the evaluating committee at least one week before the presentation.
- The student will make a short presentation (20 minutes maximum) of the work to the evaluating committee which will then evaluate the student.
- Explicit mention of the original research results obtained by the student must be made both in the report and in the presentation to the evaluating commission. Failure to do so may result in a negative evaluation of the course.