Course guide
230818 - I2RCED - Introduction to Research in Data Science Engineering

Last modified: 24/05/2024

Unit in charge:	Barcelona School of Telecommunications Engineering
Teaching unit:	739 - TSC - Department of Signal Theory and Communications.

Degree:	BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Optional subject). BACHELOR'S DEGREE IN DATA SCIENCE AND ENGINEERING (Syllabus 2017). (Optional subject).

Academic year: 2024   **ECTS Credits:** 6.0   **Languages:** English

LECTURER

Coordinating lecturer: FERNANDO MARQUES ACOSTA

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Generical:
12 CPE N3. They will be able to identify, formulate and solve engineering problems in the ICC field and will know how to develop a method for analysing and solving problems that is systematic, critical and creative.

Transversal:
04 COE N3. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
06 URI N3. EFFECTIVE USE OF INFORMATI0N RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.
07 AAT N3. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.

TEACHING METHODOLOGY

The aim of this subject is to introduce the student to the research methodology by collaborating with research groups located in universities, research centers or companies.

The subject represents between 125 and 150 study hours that distributed among the weeks of a semester lead to an approximate dedication of 10 hours / week.

LEARNING OBJECTIVES OF THE SUBJECT

The learning outcomes of this subject are:
- Ability to conduct research in new techniques, methodologies, architectures, services or systems in the area of data science and engineering.
- Ability to analyze the state of the art on a specific research topic.
- Ability to formulate hypotheses, propose models and perform experimental validations.
- Ability to plan, organize, develop and present a research topic.
- Ability to adequately disseminate the results of a research.

STUDY LOAD

Type	Hours	Percentage
Hours small group	52,0	34.67
Self study	98,0	65.33

Total learning time: 150 h

CONTENTS

They will depend on the specific contents of each proposal

Description:
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Full-or-part-time: 156h
Laboratory classes: 58h
Self study : 98h

GRADING SYSTEM

The student will give his tutor a report of the work done in the form of a conference article, according to the format to be established (maximum 8 pages without references).

The student will make a presentation before a three-professor panel a week after the report is delivered.

The evaluation of the work will be done based on the document and the presentation.