

230254 - SDR - Radio Systems and Devices

Coordinating unit: 230 - ETSETB - Barcelona School of Telecommunications Engineering
 Teaching unit: 739 - TSC - Department of Signal Theory and Communications
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2010).
 (Teaching unit Optional)
 BACHELOR'S DEGREE IN TELECOMMUNICATIONS SCIENCE AND TECHNOLOGY (Syllabus 2010).
 (Teaching unit Optional)
 BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2010). (Teaching unit Optional)
 BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING
 (Syllabus 2015). (Teaching unit Optional)
 ECTS credits: 6 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: JOAN O'CALLAGHAN
 Others: JOAN O'CALLAGHAN, SEBASTIÀ BLANCH

Prior skills

Basic previous knowledge in microwaves and antennas.

Teaching methodology

- Lectures
- Lab practise
- Group work
- Individual homework

Learning objectives of the subject

Ability to design, simulate and test radio systems and devices.

Study load

Total learning time: 150h	Hours large group:	26h	17.33%
	Hours small group:	26h	17.33%
	Self study:	98h	65.33%

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Content

(ENG) 1. Introducció	Learning time: 4h Theory classes: 2h Self study : 2h
Description: Introduction	
(ENG) 2. Instrumentació	Learning time: 60h Laboratory classes: 15h Self study : 45h
Description: Spectrum, network and noise analysis.	
(ENG) 3. Disseny, simulació i prototipatge	Learning time: 86h Laboratory classes: 35h Self study : 51h

Planning of activities

(ENG) LABORATORI
(ENG) EXERCICIS
(ENG) CONTROLS DE RESPOSTA CURTA

Qualification system

Homework: 10%
 Lab practises: 90%

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Bibliography

Basic:

Pozar, D.M. Microwave engineering. 4th ed. Hoboken: Wiley, 2012. ISBN 9780470631553.