Last update: 06-05-2019

230035 - FMNT - Fundamentals of Micro- and Nanotechnologies

Coordinating unit: 230 - ETSETB - Barcelona School of Telecommunications Engineering

Teaching unit: 710 - EEL - Department of Electronic Engineering

Academic year: 2019

Degree: BACHELOR'S DEGREE IN ELECTRONIC SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Teaching unit Optional)

ECTS credits: 6 Teaching languages: Catalan, Spanish, English

Teaching staff

Coordinator: -Castañer Muñoz, Luis M.

Others: Castañer Muñoz, Luis M.

Degree competences to which the subject contributes

Transversal:

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.

Learning objectives of the subject

Study load

Total learning time: 150h	Hours large group:	65h	43.33%
	Self study:	85h	56.67%

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Content

(ENG) Tema1. Introducció	Learning time: 9h Theory classes: 2h Practical classes: 0h 30m Self study : 6h 30m
(ENG) Tema 2. Semiconductors	Learning time: 57h 44m Theory classes: 18h Practical classes: 4h 30m Self study : 35h 14m
(ENG) Tema 3. Dispositius fotònics	Learning time: 34h 02m Theory classes: 9h Practical classes: 2h 30m Self study : 22h 32m
(ENG) Tema 4. MEMS y NEMS	Learning time: 14h 44m Theory classes: 4h Practical classes: 1h Self study : 9h 44m
(ENG) Tema 5. Tecnologias y materiales	Learning time: 18h Theory classes: 5h Practical classes: 3h Self study : 10h

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Planning of activities

(ENG) Presentació oral

(ENG) Proves de resposta curta (Control)

(ENG) Proves de resposta llarga (Control)

(ENG) Proves de resposta curta (Test)

(ENG) Exercicis

(ENG) Proves de resposta llarga (Examen Final)

Bibliography

Basic:

Parker, G. Introductory semiconductor device physics. New York [etc.]: Prentice Hall, 1994. ISBN 0131437771.

Rogers, B.; Pennathur, S.; Adams, J. Nanotechnology: understanding small systems. Boca Raton, FL: CRC Press, 2008. ISBN 9780849382079.