

## 62226 - Ubiquitous embedded systems

#### Información del Plan Docente

Academic Year 2016/17

Academic center 110 - Escuela de Ingeniería y Arquitectura

**Degree** 534 - Master's in IT Engineering

**ECTS** 6.0 **Course** 1

Period Second semester

Subject Type Compulsory

Module ---

- 1.Basic info
- 1.1.Recommendations to take this course
- 1.2. Activities and key dates for the course
- 2.Initiation
- 2.1.Learning outcomes that define the subject
- 2.2.Introduction
- 3.Context and competences
- 3.1.Goals
- 3.2.Context and meaning of the subject in the degree
- 3.3.Competences
- 3.4.Importance of learning outcomes
- 4.Evaluation
- 5. Activities and resources
- 5.1.General methodological presentation

The learning process designed for this course is based on the following:

Teaching activities and classroom learning:

1. Master class. 2. Laboratory. 3. Tutoring. 4. Evaluation.



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Teaching activities and non-contact learning are based on:

1. Home work. 2. Theoretical study. Study related to "lectures" content: study includes any activity that has not been computed in the previous section (study evaluation, library work, further reading, doing exercises and problem solving, etc.)

## 5.2.Learning activities

The course consists of 6 ECTS corresponding to 150 estimated hours of student work (60 contact hours and 90 hours of personal work) distributed as follows:

- \* 55 hours (approximately), of classroom activities (lectures including professional seminars, problem solving and cases studies, and laboratory assignment).
- \* 60 hours of project work.
- \* 30 hours of work and effective individual study.
- \* 5 hours devoted to various evaluation tests.

#### 5.3.Program

- 1. Introduction
- 2. Embedded Computing Components, programming, time sequential sampled, concurrent, cyclic, interruptions
- 3. S.O.
- 4. Single Node
- 5. Network Architecture Network
- 1. Physical layer, link, MAC
- 2. Name and address
- 3. Control topology
- 4. Location and timing
- 5. Transport and applications

#### 5.4. Planning and scheduling

The learning organization of the classroom sessions are scheduled as follows:

- \* Lectures and exercises solving and case studies
- \* Lab assailments

The schedules of all classes and dates of the practice sessions will be announced well in advance through the websites of the center and the course.



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The proposed projects will be delivered at the end of the semester, the dates will be indicated.

# 5.5.Bibliography and recomended resources