28807 - Computer Science

Información del Plan Docente

Academic Year	2016/17
Academic center	175 - Escuela Universitaria Politécnica de La Almunia
Degree	424 - Bachelor's Degree in Mechatronic Engineering
ECTS	6.0
Course	1
Period	Second semester
Subject Type	Basic Education
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 subject is based on the following:

Strong interaction between the teacher/student. This interaction is brought into being through a division of work and responsibilities between the students and the teacher. Nevertheless, it must be taken into account that, to a certain degree, students can set their learning pace based on their own needs and availability, following the guidelines set by the teacher.

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The current subject (the teacher should put THE NAME OF THE SUBJECT here) is conceived as a stand-alone combination of contents, yet organized into three fundamental and complementary forms, which are: the theoretical concepts of each teaching unit, the solving of problems or resolution of questions and laboratory work, at the same time supported by other activities

5.2.Learning activities

The programme offered to the student to help them adquiere their target result is made up of the following activities.

- Theory casses: Theoretical and / or practical activities carried out mainly trough exposition by the teacher-
- Practical classes / seminary / workshop: Theoretical discussion activities or mainly practical cases carried out in the classroom and requiring a high - level of the student`s participation.
- Computer laboratory practices: practical activities carried out in the computing laboratories, in the computer science classroom.
- Group tutorial: Scheduled follow-up activities of learning inwhich the teacher meets a group of students to guide their autonomous learning process and counsel directed works which require a high - level assessment degree by the teacher.
- Individual tutorials: they way be in person online.

5.3.Program

Contents

UT1.- BASIC CONCEPTS

- Basic architecture of a microprocessor based system.
  - CPU
  - Memory (Types)
  - E/S Unit.
  - Buses

UT2.- BASIC CONCEPTS ON NETWORKS

- Topologies
- Transmission means
- protocols

UT3.- LANGUAJE C (Basic programming)

- Variables (Local and global)
- Control structures
- Conditions (Conditions assement)

UT4.- LANGUAJE C (Data structures)

- Arrays
- Pointers
- Files
- Structures

- User Functions.

5.4.Planning and scheduling

The schedule of the lectures as welles the carrying out of the practices will be established by the centre at the beginning of each corse (This timetable / schedule will be published on the website of the centre).

Other activities (Handing of practices, assessment test etc) are planned according to number of groups and communicate to students in advance at the begining of course.

5.5.Bibliography and recomended resources

- Huerta Abad, Pedro. Apuntes de la Asignatura Informática/ Pedro Huerta Abad. 1ª edic La Almunia: EUPLA, 2011.
- Gottfried, Byron S.. Programación en C / Byron S. Gottfried ; traduccion, José Rafael García Lázaro ; revisión técnica, Antonio Vaquero Sánchez . - 2ª ed. rev. Madrid [etc.] : McGraw-Hill, D.L. 2005
- Huerta Abad, Pedro.. Presentación Resumen en Pptx, Conceptos Básicos de Redes/ Pedro Huerta Abad.. - 1ª edc La Almunia: EUPLA,2011.