

## 30366 - Software Analysis and design

### Información del Plan Docente

<b>Academic Year</b>	2016/17
<b>Academic center</b>	110 - Escuela de Ingeniería y Arquitectura
<b>Degree</b>	438 - Bachelor's Degree in Telecommunications Technology and Services Engineering
<b>ECTS</b>	6.0
<b>Course</b>	4
<b>Period</b>	First semester
<b>Subject Type</b>	Compulsory
<b>Module</b>	---

### **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**

Learning Process:

1. Study and work starting from the very first day.
2. Classes that will develop the main course concepts on Analysis, Design and Testing of Software Systems. Students will be specially involved in the class development.
3. Classes devoted to apply the main course concepts by means of problem solving. Students will play a primary role to achieve success.
4. Laboratory classes. Students will learn techniques, methods and technologies for Analysis, Design, Implementation and Testing of Software Systems.

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5. Development of a small scale software system.

### Students Work:

150 hours of effective work as follows:

- Around 55 hours for face to face activities with the Professor (theory - 20 hours -, problems -15 hours-, laboratory - 20 hours -)
- Around 55 hours for work group
- Around 35 hours for individual work and study
- Around 5 hours for evaluation

### 5.2.Learning activities

Activities for addressing the expected results ...

1. Classroom classes will develop the course programm
2. Classes specially devoted to solve problems related to the course programm
3. Laboratory classes for software development activities
4. Small scale software development (Course Project)

### 5.3.Program

- Introduction to Software Engineering: Software Life-cycle
- Software Requirements
- Object-oriented Software Design: Static modeling, Dynamic modeling
- Object-oriented Software Design: Design Patterns
- Basis on Software Testing
- Distributed Objects

### 5.4.Planning and scheduling

Calendar:

- Classes for Theory and Problems (2 hours per week during 10 weeks; 3 hours per week during 5 weeks)
- Laboratory (6 sessions of 3 hours per session)
- Project course tracing (1 hour per week, unevenly applied)

### 5.5.Bibliography and recommended resources