Universidad Zaragoza

Year : 2019/20

30366 - Software Analysis and Design

Syllabus Information

Academic Year: 2019/20
Subject: 30366 - Software Analysis and Design
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
Degree: 438 - Bachelor's Degree in Telecomunications Technology and Services Engineering
ECTS: 6.0
Year: 4
Semester: First semester
Subject Type: Compulsory
Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

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 especially 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.
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 workgroup

- Around 35 hours for individual work and study
- Around 5 hours for evaluation

4.2.Learning tasks

Activities for addressing the expected results

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

4.3.Syllabus

The course will address the following learning tasks:

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

4.4.Course planning and calendar

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)

4.5.Bibliography and recommended resources

http://biblos.unizar.es/br/br_citas.php?codigo=30366&year=2019