30249 - Software Engineering Laboratory

Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	439 - Bachelor's Degree in Informatics Engineering
ECTS	6.0
Year	4
Semester	Indeterminate
Subject Type	Compulsory
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

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

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The learning process is based on:

1. Daily study and work
2. Learning concepts about a specific problem domain, and about the activities involved in developing a software project in this domain, during the lectures.
3. Applying these concepts to practical cases during problem-oriented interative lectures
4. Laboratory assignments on a specialized problem domain (geographic information systems)
5. Teamwork on a project to develop a small software system following modern software engineering techniques

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5.2.Learning tasks

1. Lectures in the classroom to develop the program
2. Problem-solving activities to put into practice the concepts and techniques in de program
3. Laboratory assignments to learn about the domain of geographic information systems
4. Team project: software development of a small software system

5.3.Syllabus

1. Introduction to geographic information systems: visualization, applications and services, object models and an overview of spatial analysis
2. Domain-driven design: domain models, the lifecycle of objects, supple design and model integrity
3. Software architecture and domain driven design: layered architecture, dependency inversion and hexagonal architecture
4. Development of a software project in a team, in the domain of the geographic information systems: a "smart campus" application

5.4.Course planning and calendar

- Lectures (2 hours per week)
- Problems (1 hour per week)
- Laboratory assignments (5 sessions of 3 hours)

The students are expected to work:

- 35 hours in classroom activities (theory and problems)
- 15 hours in the laboratory assignments
- 105 hours of study and teamwork

5.5.Bibliography and recommended resources

[BB: Bibliografía básica / BC: Bibliografía complementaria]

- Zaragoza:
- [BB] Evans, Eric. Domain-driven design : tackling complexity in the heart of software / Eric Evans . Boston : Addison-Wesley, cop. 2004
- [BC] Vernon, Vaughn. Implementing Domain-Driven Design / Vaughn Vernon Addison Wesley, 2013.

Listado de URL

- Víctor Olaya. Sistemas de Información Geográfica (versión 1.0). Disponible bajo licencia Creative Commons Attribution [https://volaya.github.io/libro-sig/]
- Teruel:
- No hay relación bibliográfica para esta asignatura(Ver toda la bibliografía recomendada + enlace al catálogo)