uc3m Universidad Carlos III de Madrid

Software development and operation

Academic Year: (2022 / 2023) Review date: 30/05/2022 18:06:58

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: ALVAREZ RODRIGUEZ, JOSE MARIA

Type: Compulsory ECTS Credits: 6.0

Year: 4 Semester: 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Software engineering (Course: second - semester: first)

LEARNING OUTCOMES

- ¿ To understand the types of corporate information systems in relation to business models.
- Know and apply integrated project management, resource estimation and quality management.
- Know and apply change and maintenance management and audit processes.

OBJECTIVES

The subject objetive i to obtain the necessary knowledge and skills to design, plan, build, deploy and operate a software system, ensuring the quality requirements in the different environments and architectures defined for its construction.

DESCRIPTION OF CONTENTS: PROGRAMME

- Basis and concepts withing the development and operation of software systems
- -Planification of software systems
- -Architecture and development of software systems
- -Deployment of software systems
- -Operation and monitoring of software systems
- -Quality assurance of software systems

LEARNING ACTIVITIES AND METHODOLOGY

Seminars and lectures supported by computer and audiovisual aids.(1.5 ECTS) Practical learning based on cases and problems, and exercise resolution.(1 ECTS)

Individual and group or cooperative work with the option of oral or written presentation. (2 ECTS)

Individual and group tutorials to resolve doubts and queries about the subject.

Internships and directed laboratory activities (1.5 ECTS)

ASSESSMENT SYSTEM

% end-of-term-examination/test: 0

% of continuous assessment (assignments, laboratory, practicals...):

- 1.- Partial exams. There will be two partial exams that will release the subject.
- 1.1. The first of them with a weight of 20% will include the fundamentals and planning of the SW,
- 1.2. The second of them the architectures, construction and deployment of software systems with a weight of 20%.
- 2. Practical work. A group work will be carried out with a case study that will be developed during the subject and that will be presented orally and the memory of execution with a weight of 20% the work and 10% the defense.
- 3. Quality assurance audit in which the different teams are cross-audited. The audit (10% of the grade) will be reflected in a report that will include the allegations created and the public defense of the same with the debate of the allegations with another 10%
- 4. Class flipped. Students will present a topic of the subject and there will be a debate on it. (10%)