Computing technologies for the web Information Systems

Academic Year: (2021 / 2022) **Review date: 28/06/2021 18:51:45**

Department assigned to the subject:

Coordinating teacher: ZARRAONANDIA AYO, TELMO AGUSTIN

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

- Programming (Course: 1 / Semester: 1)
- User Interfaces (Course: 3 / Semester: 1)

OBJECTIVES

R1. Knowledge and comprenhesion. Basic knowledge about the scientific and technologic basis of Computer Science Engineering. Specific knowledge about Computation Science, Computers Engineering and Information Systems.

R5. Engineering Applications. To be able to apply the knowledge and comprenhension require to solve problems, supervise research procesess and design devices and process in the context of the Computer Science area according with cost, quality, security, efficiency, enviromental and ethics criteria. These capacities include the knowlegde, use and understanding of limitations of informatic systems, procesess engingeering, computer architectures, computational models, teams, technique bibliographic references and other sources of information.

R6 Transversals Competences: To have the necessary capacities to the practice of engineering in the context of the current society. The student will show the capacitiy to work eficiently individually and in group, displaying the hability to comunicate and coordinate teams. The student will demonstrate to take into account the responsability to practice engineering, its social and environmental impact, professional ethic and the norms and rules. Finally, the student will demonstrate habilities and competeneces related to the best practices in project management, its tools and risk assesment.

DESCRIPTION OF CONTENTS: PROGRAMME

1· Development of distributed components
2· Web programming
3· Web application design patterns
4· Techniques for asynchronous communications with servers 5· MVC architectures (Vista-Controller Model)
6· Persistence engines
7· Web development for specific platforms
8. Practical example for information systems

LEARNING ACTIVITIES AND METHODOLOGY

* Theoretical lectures: 1 ECTS. To achieve the specific cognitive competences of the course. Besides, to develop transversal competeces as capacity to analysis and abstraction.
* Practical lectures: 1 ECTS. To develop the specific instrumental competences. Besides, to develop transversal competeces as problem solving and knowledge application.
* Continous assessment exercises: 1,5 ECTS. Iniciated during the practical sessions and finished out of them. Their objective is to complete the development of the specific instrumental competences and to iniciate the developemnt of the actitudinals specific competences as well as the transveral competeces on problem solving and knowledge application.
* Practice: 2 ECTS. Carried out withouth the presence of the teacher. Their objective is to complete and

integrate the development of the specific competences and transversal competences by means of practice cases in which the problem, solving method, criteria for selecting the solving method, the results and their interpretation are well documented.
* Tutorships: Teacher assistance
* Exercises and examination: 0,5 ECTS. To complete the development of specific cognitive and procedimental capacities

ASSESSMENT SYSTEM

% end-of-term-examination/test:	30
% of continuous assessment (assigments, laboratory, practicals…):	70

Continuous assessment: 60%
Final exam: 40%

Minimum mark exam: 3 (over 10)

BASIC BIBLIOGRAPHY

- Allamaraju, Subrahmanyam Programación Java Server con J2EE, Edición1.3, Anaya..

- Bruce W. Perry Java Servlet & JSP Cookbook, O`Reilly UK.

- Elizabeth Castro XML for the World Wide Web, Peachpit Press.

- Hugh E. Williams, David Lane Web Database Applications with PHP and MySQL, O`Reilly UK..

- Sam Newman Building Microservices, O'Reilly Media, 2015