



1. General information

Course: PROCESS AND SERVICE MANAGEMENT

Type: CORE COURSE

Degree: 2362 - MÁSTER UNIVERSITARIO EN INGENIERÍA INFORMÁTICA (CR) - (2020)

Center: 108 - SCHOOL OF COMPUTER SCIENCE OF C. REAL

Year: 1

Main language: Spanish

Use of additional languages:

Web site:

Code: 311050

ECTS credits: 6

Academic year: 2023-24

Group(s): 20

Duration: C2

Second language: English

English Friendly: Y

Bilingual: N

Lecturer: FELIX OSCAR GARCIA RUBIO - Group(s): 20

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Lecturer: MANUEL ANGEL SERRANO MARTIN - Group(s): 20

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2. Pre-Requisites

Theoretical knowledge of software engineering is required as a prerequisite. In particular, those related to processes and methodologies of software development, project management and information systems.

3. Justification in the curriculum, relation to other subjects and to the profession

This subject is part of the "Quality and Security" course of the University Master's Degree in Computer Science. Given the importance of services in the world of software, it is now more important than ever to prepare IT managers with the necessary knowledge to manage, certify and evaluate them in accordance with the emerging standards in this field. This subject addresses the issues related to the management, certification and evaluation of information technology systems and services using the most relevant international standards.

4. Degree competences achieved in this course

Course competences

Code	Description
CE07	Ability to design, develop, manage and evaluate systems and processes which guarantee the confidentiality, integrity and availability of information within a local or distributed processing system
CE08	Ability to analyse the needs for information which could be laid over an environment and develop all their stages in the process of building information systems.
INS01	Analysis, synthesis and assessment skills.
INS04	Problem solving skills by the application of engineering techniques.
INS05	Argumentative skills to logically justify and explain decisions and opinions.
PER01	Team work abilities.
SIS01	Critical thinking.
SIS03	Autonomous learning.
SIS09	Care for quality.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Know and apply models for the improvement of evaluation processes in the development, maintenance and operation of system software

Know and apply procedures, good practice and management standards to the Information Technology Services

Assess and certify the security of the system software based on the existing rules and standards, as well as the most appropriate security maturity models

Assess, certify and assure the quality of the system software based on the existing rules and standards

Identify the main processes of development regarding information systems and be able to argue their appropriacy, improvement, optimization and adaptation to different environments

6. Units / Contents

Unit 1: Processes and services management

Unit 2: Reference models and standards for processes, products and services

Unit 3: Evaluation and Certification of processes, products and services

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Combination of methods	CE07 SIS09	1.16	29	N		Lectures corresponding to topics 1-3 and theoretical-practical lessons in the laboratory [MAG]
In-class Debates and forums [ON-SITE]	Debates	CE07 CE08 INS04 INS05 SIS09	0.16	4	Y	N	Discussions on actual cases or related current proposals
Individual tutoring sessions [ON-SITE]	Other Methodologies	CE07 CE08	0.16	4	Y	N	Tutoring for the follow-up of individual works [TUT]
Group tutoring sessions [ON-SITE]	Group tutoring sessions	CE07 CE08	0.08	2	Y	N	Tutoring for the follow-up of group work [TUT]
Study and Exam Preparation [OFF-SITE]	Self-study	CE07 CE08 INS01 SIS01 SIS03 SIS09	2.2	55	N		Study to be devoted by the student to the preparation of the subject written tests [EST]
Project or Topic Presentations [ON-SITE]	Group Work	INS05 PER01 SIS09	0.16	4	Y	N	Presentation of the work in class and question and answer session for all the students.
Practicum and practical activities report writing or preparation [OFF-SITE]	Group Work	CE07 CE08 INS01 INS04 INS05 SIS09	0.6	15	Y	Y	Preparation of reports covering practical content. This activity will have a group approach [RES].
Writing of reports or projects [OFF-SITE]	Group Work	CE07 CE08 INS01 INS04 PER01 SIS09	0.8	20	Y	Y	Preparation of reports covering theoretical content. This activity will have a group approach [RES].
Final test [ON-SITE]	Assessment tests	CE07 CE08 INS01 INS04 INS05 SIS01 SIS09	0.28	7	Y	Y	Final test covering all the contents of the subject [EVA]
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities	CE07 CE08 INS01 INS04 INS05 PER01 SIS09	0.4	10	N		Lab practical preparation [PLAB]
Total:			6	150			
Total credits of in-class work: 2.4			Total class time hours: 60				
Total credits of out of class work: 3.6			Total hours of out of class work: 90				

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Practicum and practical activities reports assessment	26.00%	26.00%	Compulsory activities that can be retaken (rescheduling). It will consist of the delivery of 2 theoretical and practical assignments [LAB]
Final test	50.00%	50.00%	Compulsory activity that can be retaken (rescheduling). Final test of the entire subject matter [ESC]
Theoretical papers assessment	14.00%	14.00%	Compulsory activity that can be retaken (rescheduling). Deliverable of the group theoretical assignment [INF]
Oral presentations assessment	10.00%	10.00%	Non-compulsory activity that can be retaken (rescheduling). Presentations, exercises and participation of students in class discussions will be valued [PRES]. The students of non-continuous modality will be evaluated of this activity through an alternative system in the ordinary call [PRES]
Total:	100.00%	100.00%	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

Evaluation criteria for the final exam:

Continuous assessment:

In compulsory activities, a minimum mark of 40% is required in order to pass that activity and have the possibility to therefore pass the entire subject. A compulsory activity cannot be divided into eliminatory parts, nor can minimum marks be established for each of its parts. In the case of the activities that may be retaken (i.e., rescheduling), an alternative activity or test will be offered in the resit/retake exam call (convocatoria extraordinaria).

The final exam will be common for all the theory/laboratory groups of the subject and will be evaluated by the lecturers of the subject in a serial way, i.e., each part of the final exam will be evaluated by the same lecturer for all the students.

A student is considered to pass the subject if she/he obtains a minimum of 50 points out of 100, taking into account the points obtained in all the evaluable activities, and also has passed all the compulsory activities.

For students who do not pass the subject in the final exam call (convocatoria ordinaria), the marks of activities already passed will be conserved for the resit/retake exam call (convocatoria extraordinaria). If an activity is not recoverable, its assessment will be preserved for the resit/retake exam call

(convocatoria extraordinaria) even if it has not been passed. In the case of the passed recoverable activities, the student will have the opportunity to receive an alternative evaluation of those activities in the resit/retake exam call and, in that case, the final grade of the activity will correspond to the latter grade obtained.

The mark of the passed activities in any call, except for the final exam, will be conserved for the subsequent academic year at the request of the student, provided that mark is equal or greater than 50% and that the activities and evaluation criteria of the subject remain unchanged prior to the beginning of that academic year.

The failure of a student to attend the final exam will automatically result in her/him receiving a "Failure to attend" (no presentado). If the student has not passed any compulsory evaluation activity, the maximum final grade will be 40%.

Non-continuous evaluation:

Students may apply at the beginning of the semester for the non-continuous assessment mode. In the same way, the student may change to the non-continuous evaluation mode as long as she/he has not participated during the teaching period in evaluable activities that together account for at least 50% of the total mark of the subject. If a student has reached this 50% of the total obtainable mark or the teaching period is over, she/he will be considered in continuous assessment without the possibility of changing to non-continuous evaluation mode.

Students who take the non-continuous evaluation mode will be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences), through the assessment systems indicated in the column "Non-continuous evaluation".

In the "non-continuous evaluation" mode, it is not compulsory to keep the mark obtained by the student in the activities or tests (progress test or partial test) taken in the continuous assessment mode.

Specifications for the resit/retake exam:

Evaluation tests will be conducted for all recoverable activities.

The failure of a student to attend the final exam will automatically result in her/him receiving a "Failure to attend" (no presentado), except in the case that the student conserves the mark for the final exam from the final exam call (convocatoria ordinaria). In the latter case, the student's carrying out of any other evaluable activity in the resit/retake exam call (convocatoria extraordinaria) will result in a numerical mark.

Specifications for the second resit / retake exam:

Same characteristics as the resit/retake exam call.

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
Hours	hours
General comments about the planning: This course will be taught in 1.5 hour sessions spread over the school calendar.	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Dumas, M., La Rosa, M., Mendling, J., Reijers, H.	Fundamentals of Business Process Management. 2nd edition https://www.springer.com/gp/book/9783662565087	Springer		978-3-662-56509-4	2018	
Piattini, M., García, F., García-Rodríguez de Guzmán, I., Pino, F.	Calidad de Sistemas de Información (5ª Ed.)	Ra-Ma			2019	
Francisco J. Pino, Moisés Rodríguez Monje, Mario Piattini Velthuis, Carlos Manuel Fernández Sánchez y Boris Delgado Riss	Modelo de madurez de ingeniería del software Versión 2.0 (MMIS V.2) https://www.aenor.com/normas-y-libros/buscar-libros/detalle?c=b63d4c95-9180-e911-a84e-000d3a2fe6cc	AENOR		978-84-8143-973-1	2018	
Bosch, J	Continuous Software Engineering https://www.springer.com/gp/book/9783319112824	Springer		978-3-319-11283-1	2014	