UNIVERSIDAD DE CASTILLA - LA MANCHA
GUÍA DOCENTE

1. General information

Course: SOFTWARE PROJECT MANAGEMENT

Type: CORE COURSE

Degree: 347 - DEGREE PROGRAMME IN COMPUTER SCIENCE ENGINEERING (CR)

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

Year: 4

Main language: Spanish

Use of additional languages:

Web site: https://campusvirtual.uclm.es/

Code: 42332

ECTS credits: 6

Academic year: 2022-23

Group(s): 20

Duration: First semester

Second language:

English Friendly: Y

Bilingual: N

Lecturer: MARIA DE LOS ANGELES MORAGA DE LA RUBIA - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Fermín Caballero/3.26	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN	3748	mariaangeles.moraga@uclm.es	Available at https://esi.uclm.es/index.php/grado-en-ingenieria-informatica/profesorado/

2. Pre-Requisites

This subject is based on the competences and knowledge acquired in the subjects:

- Aspectos Profesionales de la Informática
- Ingeniería del Software I
- Ingeniería del Software II

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

This subject is integrated into the subject of 'Tecnología Específica de Ingeniería del Software' of the curriculum.

It deals with methodological and technological aspects for the planning, monitoring and control of software development projects.

Special emphasis is placed on the estimation, risk management, management methods of both traditional and agile software projects and monitoring and control through the use of support tools.

4. Degree competences achieved in this course

Course competences

Code	Description
INS01	Analysis, synthesis, and assessment skills.
INS02	Organising and planning skills.
INS03	Ability to manage information and data.
INS04	Problem solving skills by the application of engineering techniques.
INS05	Argumentative skills to logically justify and explain decisions and opinions.
IS04	Ability to detect and analyse problems, and design, develop, implement, verify, and document software solutions on the base of adequate knowledge about theories, models, and current techniques.
IS05	Ability to detect, assess, and manage potential risks which may occur.
PER01	Team work abilities.
PER02	Ability to work in multidisciplinary teams.
PER04	Interpersonal relationship skills.
PER05	Acknowledgement of human diversity, equal rights, and cultural variety.
SIS01	Critical thinking.
SIS03	Autonomous learning.
SIS04	Adaptation to new scenarios.
SIS05	Creativity.
SIS06	Leadership skills.
SIS08	Initiative and entrepreneurial abilities.
SIS09	Care for quality.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Knowledge and understanding of the application of the necessary techniques to be able to carry out the planning of software development projects, based on estimates of the effort of their development, and of how to carry out follow-ups and adequate control for the execution of these projects.

Knowledge of the techniques to identify, evaluate and manage the risks that can appear in the development of software.

6. Units / Contents

Unit 1: Scrum
  Unit 1.1 Introduction to Scrum. Roles, events and artifacts.

Unit 2: The Strategic Planning of Software Development Enterprises
  Unit 2.1 Basic concepts. Boar model. IT applications in strategic planning. Strategic Planning of Information Systems

Unit 3: Planning of Software Project
  Unit 3.1 Introduction. The nature of software projects. General Framework. Methods of Project Management Software (PMBOK, SCRUM). Techniques for project management Software.

Unit 4: Software Estimation
  Unit 4.1 Introduction to software estimation. Stages: estimation of the size, estimation of the effort, estimation of the duration. Software estimation techniques.

Unit 5: Risk Management in Software Projects
  Unit 5.1 Introduction. Risk Planning (Identification, Analysis, Prioritization, Development of responses). Supervision and control of risks (Supervision, Resolution or control). Risk Management Models for Software Projects

ADDITIONAL COMMENTS, REMARKS

PRACTICES

The main objective of the practice sessions is to learn how to use management tools for the estimation, planning, monitoring and control of software projects.

Practice sessions will be developed to deal with the following contents:

- Planning, Monitoring and Control of Software Projects
- Monitoring a software project with Scrum.SCRUM
- Software Estimation

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]	Lectures	INS01 INS02 INS04 INS05 IS04 IS05 SIS01 SIS09	0.6	15	N	-	Teaching of the subject matter by lecturer (MAG)
Individual tutoring sessions [ON-SITE]		INS01 INS02 INS04 INS05 IS04 IS05 SIS09	0.18	4.5	N	-	Individual or small group tutoring in lecturer¿s office, classroom or laboratory (TUT)
Study and Exam Preparation [OFF-SITE]	Self-study	INS01 INS02 INS04 INS05 IS04 IS05 SIS03 SIS08 SIS09	1.8	45	N	-	Self-study (EST)
Other off-site activity [OFF-SITE]	Practical or hands-on activities	INS01 INS02 INS03 INS04 INS05 IS04 IS05 PER01 PER02 PER04 PER05 SIS03 SIS04 SIS05 SIS06 SIS08 SIS09	0.9	22.5	N	-	Lab practical preparation (PLAB)
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	INS01 INS02 INS04 INS05 IS04 IS05 PER01 PER02 PER04 PER05 SIS04 SIS05 SIS06 SIS08 SIS09	0.6	15	Y	N	Worked example problems and cases resolution by the lecturer and the students (PRO)
Writing of reports or projects [OFF-SITE]	project-based learning	INS01 INS02 INS04 INS05 IS04 IS05 PER01 PER02 PER04 PER05 SIS01 SIS03 SIS04 SIS05 SIS06 SIS08 SIS09	0.9	22.5	Y	N	Preparation of essays on topics proposed by lecturer (RES)
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities	INS01 INS02 INS03 INS04 INS05 IS04 IS05 PER01 PER02 PER04 PER05 SIS04 SIS05 SIS06 SIS08 SIS09	0.72	18	Y	Y	Realization of practicals in laboratory /computing room (LAB)
Final test [ON-SITE]	Assessment tests	INS01 INS02 INS04 INS05 IS04	0.3	7.5	Y	Y	Final test of the complete syllabus of the subject (EVA)
		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
Final test	40.00%	40.00%	Compulsory activity that can be retaken (rescheduling) to be carried out within the planned exam dates of the final exam call (convocatoria ordinaria).
			Non-compulsory activity that can be retaken. To be carried out

Theoretical papers assessment	15.00%	15.00%	before end of teaching period
Laboratory sessions	30.00%	30.00%	Compulsory activity that can be retaken. To be carried out during lab sessions
Assessment of active participation	15.00%	15.00%	Non-compulsory activity that can be retaken (rescheduling). To be carried out in the theory/laboratory sessions for the students of the continuous modality. The students of non-continuous modality will be evaluated of this activity through an alternative system in the ordinary call
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. The evaluation of the activities will be global and therefore must be quantified by means of a single mark. 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 examcall (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.

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: The subject is taught in 3 x 1,5 hour sessions per week.

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Ken Schwaber and Jeff Sutherland	The Scrum Guide. The Definitive Guide to Scrum: The Rules of the Game	SCRUM.ORG			2020	
Albert Garriga Rodriguez	Guía práctica en gestión de proyectos: Aprende a aplicar las técnicas de gestión de proyectos a proyectos reales			978-8409155064	2019	
García, Félix; Piattini Mario;	Medición del software.	Ra-Ma		978-8499648507	2019	
Garzás, J., Enríquez de Salamanca, J., Irrazábal, E	Gestión Agil de Proyectos Software	Kybele-Consulting			2012	
PMI	A GUIDE TO THE PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK GUIDE) (7TH ED.)	PROJECT MANAGEMENT INSTITUTE		9781628256642	2021	