ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000485 - Software project management

DEGREE PROGRAMME

10AM - Master Universitario en Ingenieria del Software

ACADEMIC YEAR & SEMESTER

2017/18 - Semester 1

Index

Learning guide

1. Description

1.1. Subjet details

Name of the subject	103000485 - Software project management
No of credits	4 ECTS
Type	Compulsory
Academic year ot the programme	First year
Semester of tuition	Semester 1
Tuition period	September-January
Tuition languages	English
Degree programme	10AM - Master Universitario en Ingenieria del Software
Centre	Escuela Tecnica Superior de Ingenieros Informaticos
Academic year	2017-18

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
Ana Maria Moreno Sanchez-Capuchino (Subject coordinator)	5102	anamaria.moreno@upm.es	M - 15:00 - 21:00

* The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.

3. Skills and learning outcomes *

3.1. Skills to be learned

CE1 - Elaborar un plan de proyecto que permita coordinar y priorizar recursos y actividades para obtener los resultados esperados en los plazos, costes y calidad establecidos

CE2 - Llevar a cabo la monitorización de un proyecto software y tomar acciones correctivas si fuera necesario

CE3 - Elaborar una estimación de los parámetros del proyecto software.

CG1 - Que los estudiantes sepan aplicar los conocimientos adquiridos y su capacidad de resolución de problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio (RD)

CG17 - Habilidades de gestión y capacidad de liderar un equipo que puede estar integrado por disciplinas y niveles distintos

CG18 - Capacidad de trabajar y comunicarse también en contextos internacionales

CG2 - Que los estudiantes sean capaces de integrar conocimientos y enfrentarse a la complejidad de formular juicios a partir de una información que, siendo incompleta o limitada, incluya reflexiones sobre las responsabilidades sociales y éticas vinculadas a la aplicación de sus conocimientos y juicios (RD)

CG3 - Que los estudiantes sepan comunicar sus conclusiones y los conocimientos y razones últimas que las sustentan a públicos especializados y no especializados de un modo claro y sin ambigüedades (RD)

CG5 - Organización y planificación

3.2. Learning outcomes

RA2 - Facing a real problem, chooses an appropriate Software Engineering solution, analyzing its viability, what can and cannot be achieved from the current state of development of the selected solution, and what is expected to advance in the future

RA25 - Communication skills in public SC13, SC14, CG3, CG18 S

RA58 - Development of a business case for a software project

RA59 - Development of a project plan using as input estimation data

RA26 - Group work skill SC13, SC14, CG17 A

RA60 - Re-plannification of a software project with monitoring information

RA61 - Identify the elements of a risk management plan and its rationale

* The Learning Guides should reflect the Skills and Learning Outcomes in the same way as indicated in the Degree Verification Memory. For this reason, they have not been translated into English and appear in Spanish.

4. Brief description of the subject and syllabus

4.1. Brief description of the subject

No hay descripción de la asignatura.

4.2. Syllabus

1. Introduction to Software Project Management
    1.1. 1.1 Psychological Model of Software Engineers
    1.2. Leadership versus Management
    1.3. The Basic Functions of Project Management
    1.4. Developing the Business Case
2. Developing and Motivating the Project Team
    2.1. What it Takes for a Team to be Effective
    2.2. The Basics of Personalities
    2.3. Motivating Software Engineers
3. Strategic Approaches to Project Planning
    3.1. The Balanced Scorecard (BSC)
    3.2. Using SWOT to Develop the BSC
    3.3. Tracking Progress
4. Estimating Project Size, Cost, Schedule
5. Project Risk Management
    5.1. What Risk is/is not
    5.2. Strategies for Mitigating Risk
    5.3. Risk Management Methods
6. Tracking the Progress of a Software Project
    6.1. Earned Value Management
    6.2. Time Value

5. Schedule

5.1. Subject schedule*

Week	Face-to-face classroom activities	Face-to-face laboratory activities	Other face-to-face activities	Assessment activities
1	**Chapter 1** Duration: 02:00 Cooperative activities			
2		**SE Knowledge VS SPM Knowledge** Duration: 02:00 Cooperative activities		
3	**Chapter 2** Duration: 02:00 Cooperative activities			
4	**Chapter 3** Duration: 02:00 Cooperative activities			
5	**Chapter 3** Duration: 02:00 Cooperative activities			
6	**Chapter 4** Duration: 02:00 Cooperative activities			
7	**Chapter 4** Duration: 02:00 Cooperative activities			
8	**Chapter 5** Duration: 02:00 Cooperative activities			
9	**Chapter 5** Duration: 02:00 Cooperative activities			**Presentation of students work** Group presentation Continuous assessment and final examination Duration: 02:00 **Preparation of Complementary Knowledge Report** Group work Continuous assessment and final examination Duration: 02:00
10	**Chapter 6** Duration: 02:00 Cooperative activities			
11	**Chapter 6** Duration: 02:00 Cooperative activities **Chapter 6** Duration: 02:00 Cooperative activities			

12	**Chapter 6** Duration: 02:00 Cooperative activities			
13	**Chapter 6** Duration: 02:00 Cooperative activities			
14	**Chapter 6** Duration: 02:00 Cooperative activities			
15	**Chapter 6** Duration: 02:00 Cooperative activities **Chapter 6** Duration: 02:00 Cooperative activities			
16				**Presentation of students project** Group presentation Continuous assessment and final examination Duration: 02:00 **Active participation of students** Other assessment Continuous assessment and final examination Duration: 00:00
17				**Final Report** Group work Continuous assessment and final examination Duration: 00:00

The independent study hours are training activities during which students should spend time on individual study or individual assignments.

Depending on the programme study plan, total values will be calculated according to the ECTS credit unit as 26/27 hours of student face-to-face contact and independent study time.

* The subject schedule is based on a previous theorical planning of the subject plan and might go to through experience some unexpected changes along throughout the academic year.

6. Activities and assessment criteria

6.1. Assessment activities

6.1.1. Continuous assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
9	Presentation of students work	Group presentation	Face-to-face	02:00	10%	5 / 10	CE3 CE1 CG17 CE2 CG5 CG18 CG2 CG3 CG1
9	Preparation of Complementary Knowledge Report	Group work	Face-to-face	02:00	20%	5 / 10	CG18 CG2 CG3 CG1
16	Presentation of students project	Group presentation	Face-to-face	02:00	15%	5 / 10	CE3 CE1 CG17 CE2 CG5 CG18 CG2 CG3 CG1
16	Active participation of students	Other assessment	No Presential	00:00	10%	0 / 10	CG2 CG3 CG1
17	Final Report	Group work	No Presential	00:00	45%	5 / 10	CE3 CE1 CG17 CE2 CG5 CG18 CG2 CG3 CG1

6.1.2. Final examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
9	Presentation of students work	Group presentation	Face-to-face	02:00	10%	5 / 10	CE3 CE1 CG17 CE2 CG5 CG18 CG2 CG3 CG1
9	Preparation of Complementary Knowledge Report	Group work	Face-to-face	02:00	20%	5 / 10	CG18 CG2 CG3 CG1
16	Presentation of students project	Group presentation	Face-to-face	02:00	15%	5 / 10	CE3 CE1 CG17 CE2 CG5 CG18 CG2 CG3 CG1
16	Active participation of students	Other assessment	No Presential	00:00	10%	0 / 10	CG2 CG3 CG1
17	Final Report	Group work	No Presential	00:00	45%	5 / 10	CE3 CE1 CG17 CE2 CG5 CG18 CG2 CG3 CG1

6.1.3. Referred (re-sit) examination

No se ha definido la evaluación extraordinaria.

6.2. Assessment criteria

The final grade of students will be calculated according to their performance in the reports to be done and their class participation.

- Active participation of students (10%)
- Content of the reports (55%)
- Presentation of the two reports (35%)

Students must get a minimum of 5 points (over 10) in the assessment of each report in order to pass the matter.

Students must get a minimum of 5 points (over 10) as final grade in order to pass the matter.

7. Teaching resources

7.1. Teaching resources for the subject

Name	Type	Notes
Bibliography	Bibliography	Getting results from software development teams Peters, Lawrence. Microsoft Press. 2008 ISBN: 978-0-7356-2346-0
SPM web page	Web resource	Web page of the subject http://www.grise.upm.es/docencia/estimacion/)