ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000545 - Agile Software Development: Agile Practices And Agile Usability

DEGREE PROGRAMME

10AM - Master Universitario En Ingenieria Del Software

ACADEMIC YEAR & SEMESTER

2024/25 - Semester 1

Index

Learning guide

1. Description

1.1. Subject details

Name of the subject	103000545 - Agile Software Development: Agile Practices And Agile Usability
No of credits	4 ECTS
Type	Optional
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	10 - Escuela Tecnica Superior De Ingenieros Informaticos
Academic year	2024-25

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
Tomas San Feliu Gilabert	D5105	tomas.sanfeliu@upm.es	Tu - 10:00 - 14:00 Th - 10:00 - 14:00

* 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

CE13 - Tener una visión de los distintos aspectos específicos y emergentes de la ingeniería del software, y profundizar en algunos de ellos

CG18 - Capacidad de trabajar y comunicarse también en contextos internacionales

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)

CG9 - Aplicación de los métodos de resolución de problemas más recientes o innovadores y que puedan implicar el uso de otras disciplinas

3.2. Learning outcomes

RA26 - Group work skill SC13, SC14, CG17 A

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

RA24 - Conflict solving capability SC13, SC14, CG18 C

RA23 - Time organization capability SC13, SC14 K

RA11 - Understands the interrelation between product quality and process quality

RA27 - Negotiation skill SC13, SC14, CG18 C

RA14 - The student will be able to design a software system according to requirements, restrictions, quality standards, and developer criteria

* 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

This subjects provides an overview of the agile development process. We will review the main differences with traditional development and how agile practices can be used to solve some importan lacks in classical methods.

We will pay special attention to agile usability as a new approximation to improve the user experience in agile developments

We will work in agile teams to build a software product according to the previous practices and methods.

4.2. Syllabus

1. Fundamentals of Agile Development
2. Agile Artifacts
3. Description of Agile Methods
4. Agile Usability - Lean UX
5. Agile UX Project

5. Schedule

5.1. Subject schedule*

Week	Type 1 activities	Type 2 activities	Distant / On-line	Assessment activities
1	**Unit 1. Agile Fundamentals** Duration: 02:00 Cooperative activities			
2	**Unit 2. Agile Artifacts** Duration: 02:00 Cooperative activities			
3	**Unit 3. Description of Agile Methods** Duration: 02:00 Inverted classroom			
4	**Unit 3. Description of Agile Methods (Serious Game)** Duration: 02:00 Gamification			
5	**Unit 3. Description of Agile Methods** Duration: 02:00 Inverted classroom			
6	**Unit 4. Agile Usability - Lean UX** Duration: 02:00 Inverted classroom			
7	**Unit 4. Agile Usability - Lean UX** Duration: 02:00 Inverted classroom			
8	**Unit 4. Agile Usability** Duration: 02:00 Problem-solving class			
9	**Unit 4. Agile Usability** Duration: 02:00 Problem-solving class			
10	**Unit 4. Agile Usability** Duration: 02:00 Problem-solving class			
11	**Unit 5. Agile UX Project** Duration: 02:00 Cooperative activities			
12	**Unit 5. Agile UX Project** Duration: 02:00 Additional activities			**Presentation of Project** Group presentation Progressive assessment Presential Duration: 02:00
13	**Unit 5. Agile UX Project** Duration: 02:00 Additional activities			**Presentation of Project** Group presentation Progressive assessment Presential Duration: 02:00

14	**Unit 5. Agile UX Project** Duration: 02:00 Additional activities			**Presentation of Project** Group presentation Progressive assessment Presential Duration: 02:00
15	**Unit 5. Agile UX Project** Duration: 02:00 Additional activities			**Presentation of Project** Group presentation Progressive assessment Presential Duration: 02:00 **Active Participation of Students** Other assessment Progressive assessment Not Presential Duration: 00:00 **Content of Project Report** Group work Progressive assessment Not Presential Duration: 00:00 **Active Participation of Students** Other assessment Global examination Not Presential Duration: 00:00
16	**Seminar** Duration: 02:00 Cooperative activities			
17				**Content of the Project Report** Individual work Global examination Not Presential Duration: 00:00 **Presentation of Project** Individual presentation Global examination Presential Duration: 02:00

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.

6. Activities and assessment criteria

6.1. Assessment activities

6.1.1. Assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
12	Presentation of Project	Group presentation	Face-to-face	02:00	10%	0 / 10	CE13 CG9 CG18 CG3
13	Presentation of Project	Group presentation	Face-to-face	02:00	10%	0 / 10	CE13 CG9 CG18 CG3
14	Presentation of Project	Group presentation	Face-to-face	02:00	10%	0 / 10	CE13 CG9 CG18 CG3
15	Presentation of Project	Group presentation	Face-to-face	02:00	10%	0 / 10	CE13 CG9 CG18 CG3
15	Active Participation of Students	Other assessment	No Presential	00:00	10%	0 / 10	
15	Content of Project Report	Group work	No Presential	00:00	50%	5 / 10	CE13 CG9 CG18 CG3

6.1.2. Global examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
15	Active Participation of Students	Other assessment	No Presential	00:00	10%	0 / 10	CE13 CG9 CG18 CG3
17	Content of the Project Report	Individual work	No Presential	00:00	50%	5 / 10	CE13 CG9 CG18 CG3

17	Presentation of Project	Individual presentation	Face-to-face	02:00	40%	5 / 10	CE13 CG9 CG18 CG3

6.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Content of Project Report	Individual work	Face-to-face	00:00	90%	5 / 10	CE13 CG9 CG18 CG3
Active Participation of Students	Other assessment	Face-to-face	00:00	10%	0 / 10	CE13 CG9 CG18 CG3

6.2. Assessment criteria

During progressive evalation, the final grade of students will be calculated according to their performance in the project and their class participation.

- Active participation of students (10%)
- Content of report (50%)
- Presentations (10% each)

Students must get a minimum of 5 points in the assessment of the reports 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.

During the global evaluation, the final grade of the students will be calculated according to their performance in the project and their class participation.If students have attended to the lecturers during the course, they will be evaluated accordingly in the "Active participation" activity. If not, their grade in the "Active participation" activity will be 0.

- Active participation of students (10%)
- Content of report (50%)
- Presentation (40%)

Students must get a minimum of 5 points in the assessment of the report in order to pass the matter.

Students must get a minimum of 5 points in the assessment of the presentation 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.

During the extraordinary evaluation, the final grade of the students will be calculated according to their performance in the project report and their class participation.If students have attended to the lecturers during the course, they will be evaluated accordingly in the "Active participation" activity. If not, their grade in the "Active participation" activity will be 0.

- Active participation of students (10%)
- Content of report (90%)

Students must get a minimum of 5 points in the assessment of the 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 Agile	Bibliography	A. Cockburn. Agile Software Development, Addison Wesley, 2002
Bibliography Scrum	Web resource	http://scrumtraininginstitute.com/library
Process Agility and Software Usability	Web resource	http://citeseer.ist.psu.edu/465732.html
Agile Ecosystems	Bibliography	J. Higsmith. Agile Software Development Ecosystems. Addison-Wesley, 2005
Lean UX. Designing great products with agile teams	Bibliography	Book by Lean UX authors