# 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

2023/24 - Semester 1

PR/CL/001
COORDINATION PROCESS OF
LEARNING ACTIVITIES

ANX-PR/CL/001-01
LEARNING GUIDE

E.T.S. de Ingenieros
Informaticos

# 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** | 2023-24 |

# 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.

PR/CL/001
COORDINATION PROCESS OF
LEARNING ACTIVITIES

ANX-PR/CL/001-01
LEARNING GUIDE

E.T.S. de Ingenieros
Informaticos

# 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.

PR/CL/001
COORDINATION PROCESS OF
LEARNING ACTIVITIES

ANX-PR/CL/001-01
LEARNING GUIDE

E.T.S. de Ingenieros
Informaticos

# 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

**PR/CL/001**
**COORDINATION PROCESS OF**
**LEARNING ACTIVITIES**

**ANX-PR/CL/001-01**
**LEARNING GUIDE**

**E.T.S. de Ingenieros**
**Informaticos**

# 5. Schedule

## 5.1. Subject schedule*

| Week | Classroom activities | Laboratory activities | Distant / On-line | Assessment activities |
|---|---|---|---|---|
| 1 | **Unit 1. Agile Fundamentals**<br>Duration: 02:00<br>Cooperative activities | | | |
| 2 | **Unit 2. Agile Artifacts**<br>Duration: 02:00<br>Cooperative activities | | | |
| 3 | **Unit 3. Description of Agile Methods**<br>Duration: 02:00 | | | |
| 4 | **Unit 3. Description of Agile Methods**<br>**(Serious Game)**<br>Duration: 02:00 | | | |
| 5 | **Unit 3. Description of Agile Methods**<br>Duration: 02:00 | | | |
| 6 | **Unit 4. Agile Usability - Lean UX**<br>Duration: 02:00 | | | |
| 7 | **Unit 4. Agile Usability - Lean UX**<br>Duration: 02:00 | | | |
| 8 | **Unit 4. Agile Usability**<br>Duration: 02:00<br>Problem-solving class | | | |
| 9 | **Unit 4. Agile Usability**<br>Duration: 02:00<br>Problem-solving class | | | |
| 10 | **Unit 4. Agile Usability**<br>Duration: 02:00<br>Problem-solving class | | | |
| 11 | **Unit 5. Agile UX Project**<br>Duration: 02:00<br>Cooperative activities | | | |
| 12 | **Unit 5. Agile UX Project**<br>Duration: 02:00<br>Cooperative activities | | | **Presentation of Project**<br>Group presentation<br>Continuous assessment<br>Presential<br>Duration: 00:30 |
| 13 | **Unit 5. Agile UX Project**<br>Duration: 02:00<br>Cooperative activities | | | **Presentation of Project**<br>Group presentation<br>Continuous assessment<br>Presential<br>Duration: 02:00 |

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

\* The schedule is based on an a priori planning of the subject; it might be modified during the academic year, especially considering the COVID19 evolution.

PR/CL/001
COORDINATION PROCESS OF
LEARNING ACTIVITIES

ANX-PR/CL/001-01
LEARNING GUIDE

E.T.S. de Ingenieros
Informaticos

# 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 | 00:30 | 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 | Face-to-face | 02:00 | 50% | 5 / 10 | CE13 CG9 CG18 CG3 |

### 6.1.2. Global examination

| Week | Description | Modality | Type | Duration | Weight | Minimum grade | Evaluated skills |
|------|-------------|----------|------|----------|--------|---------------|------------------|
| 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% | 0 / 10 | |

### 6.1.3. Referred (re-sit) examination

PR/CL/001
COORDINATION PROCESS OF
LEARNING ACTIVITIES

ANX-PR/CL/001-01
LEARNING GUIDE

E.T.S. de Ingenieros
Informaticos

| Description | Modality | Type | Duration | Weight | Minimum grade | Evaluated skills |
|---|---|---|---|---|---|---|
| Presentation of Project Report | Individual presentation | Face-to-face | 00:30 | 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 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 (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 |