ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000939 - Seminars

DEGREE PROGRAMME

10AZ - Master Universitario En Innovación Digital

ACADEMIC YEAR & SEMESTER

2025/26 - Semester 2

Index

Learning guide

1. Description

1.1. Subject details

Name of the subject	103000939 - Seminars
No of credits	4.5 ECTS
Type	Optional/elective
Academic year ot the programme	First year
Semester of tuition	Semester 2
Tuition period	February-June
Tuition languages	English
Degree programme	10AZ - Master Universitario en Innovación Digital
Centre	10 - E.T.S. De Ingenieros Informáticos
Academic year	2025-26

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
Alejandro Rodriguez Gonzalez (Subject coordinator)		alejandro.rg@upm.es	- -

* 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

CB07 - 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

CB08 - 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

CE-FT01 - Capacidad para seleccionar las soluciones de almacenamiento, manipulación, análisis y visualización para datos estructurados y no estructurados financieros de fuentes heterogéneas adecuadas en función del problema a resolver y realizar una correcta comunicación del análisis

CE-FT02 - Capacidad para analizar problemas de naturaleza financiera y su resolución mediante aplicación de tecnologías de la información y la comunicación

CE-FT03 - Capacidad para entender los conceptos básicos relacionados con las industrias del sector financiero, incluyendo dominios de fintech, proptech e insurtech

CG03 - La capacidad de usar la lengua inglesa de manera competente, es decir, con capacitación para tareas complejas de trabajo y estudio.

3.2. Learning outcomes

RA16 - Understand the relevance of continuing education

RA17 - Acquire specialized knowledge from innovative fields of studies

RA14 - Apply the acquired knowledge in real contexts

* 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

The module is configured around a series of seminars that address the challenges and opportunities emerging from different aspects of the application of information and communication technologies. Some of the seminars will be focused on the area of finance, but the seminars aim to provide a global view to the students enrolled in the master's about other potential disciplines with a strong component of information technologies. Based on this, the seminars could be of different areas and domains. The seminars will be given by experts in the field from both companies and research groups and will focus on providing to the student a unique view about how fintech projects and approaches are executed in the real world.

The main topics to be covered by the seminars include, among others:

- Artificial Intelligence
- Regulatory and ethical issues
- Large-scale data management
- Real cases of technology adoption and use
- New technologies

The topics covered by the seminars will suffer from variations yearly, amongst those in the above list or others considered relevant to the subject.

Other domains that can be covered in the seminars includes health, neuroscience, industry, telecommunications, etc.

A substantial part of the contents will be based on the interest of students based on case studies, examples, and specificities of this Fintech master course.

The seminars will promote discussions with professionals and experts from renowned ICT companies and research centers.

Some of the seminars are shared with EIT Digital Data Science Seminars.

4.2. Syllabus

1. Data Science Seminars

5. Schedule

5.1. Subject schedule*

Week	Type 1 activities	Type 2 activities	Distant / On-line	Assessment activities
1	**Data Science Seminar** Duration: 04:00 Additional activities			
2	**Data Science Seminar** Duration: 04:00 Additional activities			
3	**Data Science Seminar** Duration: 04:00 Additional activities			
4	**Data Science Seminar** Duration: 04:00 Additional activities			
5				
6	**Data Science Seminar** Duration: 04:00 Additional activities			
7	**Data Science Seminar** Duration: 04:00 Additional activities			
8	**Data Science Seminar** Duration: 04:00 Additional activities			
9				
10	**Data Science Seminar** Duration: 04:00 Additional activities			
11	**Data Science Seminar** Duration: 04:00 Additional activities			
12				
13	**Data Science Seminar** Duration: 04:00 Additional activities			
14				
15	**Data Science Seminar** Duration: 04:00 Additional activities			
16				
17				**Assessment** Other assessment Progressive assessment and 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
17	Assessment	Other assessment	Face-to-face	02:00	100%	5 / 10	CB07 CB08 CG03 CE-FT01 CE-FT02 CE-FT03

6.1.2. Global examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
17	Assessment	Other assessment	Face-to-face	02:00	100%	5 / 10	CB07 CB08 CG03 CE-FT01 CE-FT02 CE-FT03

6.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Assessment	Other assessment	Face-to-face	02:00	100%	5 / 10	CB07 CB08 CG03 CE-FT01 CE-FT02 CE-FT03

6.2. Assessment criteria

Assessment and Grading Procedures

The calculus of the final mark of the Seminars subject will be calculated on a scale of 0-100 with four elements:

- **Attendance (30 points)**: Attendance to the synchronous seminars. Every seminar will count "att" points being "att" calculated as: att = 30 / number of synchronous seminars. If you attend to all, you have 30 points. Note: This will be applied only in the seminars where we have an attendance list that might not apply to all.
- **Assignments (20 points)**: If a seminar had a mandatory assignment by the speaker, it will be taken into account. I'll only check that the mark given by the speaker was above 5 points to consider this as "passed. Hence, the formula to calculate the number of points given to assignments will be as follows: assig = 20 / number of seminars with a mark above 5. Every seminar will count "assig" points.
- **Summaries (30 points)**: Every student must send a document with a description of all the seminars of the course (synchronous and not synchronous). Remember that you can check the full list of seminars here. Maximum 1 page per seminar.
- **Project proposal (20 points)**: Every student must send a document a potential idea of a fintech case/application based on the technologies, ideas, and concepts that were seen in the seminars. Maximum: 3 pages.

Final evaluation: Final evaluation modality consists of a single exam where the content referred to the seminars given will be asked.

Progressive assessment and non-recoverable assessment items

According to the new assessment regulation of the Universidad Politécnica de Madrid, the only way to follow a course is through the progressive assessment method. According to article 12.1, this method allows students to pass an assessment item during the course and in the global evaluation of the ordinary and extraordinary calls, unless the assessment item has been defined as "non-recoverable". In Seminars course, there are three types of assignments, and both are recoverable.

7. Teaching resources

7.1. Teaching resources for the subject

Name	Type	Notes
Slides used in the lectures	Others	Slides used in the lectures
Selected bibliography recommended by the seminar supervisor	Bibliography	Selected bibliography recommended by the seminar supervisor
References of relevant case studies	Web resource	References of relevant case studies

8. Other information

8.1. Other information about the subject

Teaching and learning methods:

The module is organized around a set of seminars that will explain the whole lifecycle of Fintech-based projects in different business and scientific areas. In these seminars, experts from companies, government institutions, research centers and academia will shed light on the opportunities and challenges in Fintech in the coming years, and discuss how to address the challenges and optimally exploit the opportunities related to this field.

The teaching and learning approach include:

- Formal lectures and Discussion
- Individual learning
- Individual or team working assignments focused on case studies
- Preparation of individual or group presentations
- Evaluation of knowledge and competence acquisition through exams, homework assignments or classroom participation

ECTS distribution (4,5 ECTS):

Each seminar will be responsible of teaching and evaluating 0,5 or 1 ECTS

The student is responsible for enrolling and passing a number of seminars that sum 4,5 or more ECTS, with a grade greater than or equal to 5/10 in each seminar.

Workload calculation:

Each seminar will be responsible for teaching and evaluating 0,5 or 1 ECTS (i.e. 13,5 / 27 hours of workload) with the following workload distribution (considering 0,5 ECTS per seminar):

- 2-4 hours lecturing
- 5-7 hours for individual work
- 4 hours for exam preparation (including materials for presentation and/or assignment deliverables)
- Personal tuition will be offered to students or teams (average 1,5 hour)

Frequency and dates:

This course will be organized during the second semester of the 1st year.

4 - 5,5 contact hours (lecturing, personal tuition) per week, in alternate weeks.

Max. number of participants:

The course is limited to a maximum of 30 students

Enrollment procedure:

Enrollment is not independent of the general enrollment process of the Fintech master.

The course is a mandatory unit of the first year major. All students in the Fintech master diploma must cover it.

Other information:

The module will have an entry in the UPM e-learning platform (Moodle), which will be made available to students.

Access to documents included in the ICT-Labs Master School web site will be also made available to students.

UPM bibliographic funds and reference tools will be available for students.