

ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000872 - Evaluation Of Interactive Systems

DEGREE PROGRAMME

10AZ - Master Universitario En Innovación Digital

ACADEMIC YEAR & SEMESTER

2023/24 - Semester 2

Index

Learning guide

1. Description.....	1
2. Faculty.....	1
3. Prior knowledge recommended to take the subject.....	2
4. Skills and learning outcomes	2
5. Brief description of the subject and syllabus.....	3
6. Schedule.....	4
7. Activities and assessment criteria.....	6
8. Teaching resources.....	8
9. Other information.....	8

1. Description

1.1. Subject details

Name of the subject	103000872 - Evaluation Of Interactive Systems
No of credits	3 ECTS
Type	Optional
Academic year of 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 - 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 *
Oscar Dieste Tubio	6203	oscar.dieste@upm.es	Tu - 18:00 - 20:00 Th - 16:00 - 20:00 Please, ask for an appointment by email.
Cristian Moral Martos	5110	cristian.moral@upm.es	M - 10:00 - 14:00 Tu - 12:00 - 14:00 Please, ask for an appointment by email.

Elena Villalba Mora (Subject coordinator)	5110	elena.villalba@upm.es	M - 10:00 - 12:00 W - 10:00 - 12:00 F - 10:00 - 12:00 Please, ask for an appointment by email.
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* The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.

3. Prior knowledge recommended to take the subject

3.1. Recommended (passed) subjects

- Hci: Introduction And Design Methods

3.2. Other recommended learning outcomes

- User Centred Design, Usability

4. Skills and learning outcomes *

4.1. 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

CE-DIPO02 - Capacidad para evaluar la interacción persona-ordenador de productos y servicios de alto valor innovador

4.2. Learning outcomes

RA42 - Understand and carry experiments to evaluate interactive systems

RA41 - Plan and perform evaluation of prototypes with different fidelity levels

RA40 - Evaluate the usability of prototypes

* 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.

5. Brief description of the subject and syllabus

5.1. Brief description of the subject

This course teaches methods to perform usability evaluation, experimental design and to statistically analyse the results. Different evaluation methods will be introduced for different tasks, user groups, and performed in a lab environment as well as in field.

5.2. Syllabus

1. Introduction to evaluation of interactive systems
2. Inspection methods
3. Interrogation techniques
4. Usability test
5. Experimental design. Introduction to empirical research
6. Statistical analysis

6. Schedule

6.1. Subject schedule*

Week	Classroom activities	Laboratory activities	Distant / On-line	Assessment activities
1	1. Introduction Duration: 02:00 Lecture			
2	2.1 Inspection methods. 2.2 Heuristics evaluation Duration: 02:00 Lecture			
3	2.2 Understanding Heuristics Duration: 02:00 Additional activities			
4	3. Interrogation techniques Duration: 00:30 Lecture 4.1 Usability tests Duration: 01:30 Lecture			Presentation of inspection evaluation [non-recoverable] Group presentation Continuous assessment Presential Duration: 02:00
5	4.2 Planning, analysing and reporting a usability test Duration: 02:00 Additional activities			
6				Assessment of usability test [non-recoverable] Group presentation Continuous assessment Presential Duration: 02:00
7	5. Experimental design. Introduction to empirical research Duration: 02:00 Lecture			
8	5. Experimental design. Introduction to empirical research Duration: 02:00 Additional activities			
9	6 Statistical analysis Duration: 02:00 Lecture			
10	6 Statistical analysis Duration: 02:00 Additional activities			

11	6 Statistical analysis Duration: 02:00 Lecture			
12	6 Statistical analysis Duration: 02:00 Additional activities			Assessment experimental design and analysis [non-recoverable] Group presentation Continuous assessment Not Presential Duration: 10:00
13				
14				
15				
16				
17				Final written exam Written test Final examination Presential Duration: 03:00

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.

7. Activities and assessment criteria

7.1. Assessment activities

7.1.1. Assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
4	Presentation of inspection evaluation [non-recoverable]	Group presentation	Face-to-face	02:00	25%	/ 10	CE-DIPO02 CB07
6	Assessment of usability test [non-recoverable]	Group presentation	Face-to-face	02:00	25%	/ 10	CE-DIPO02 CB07
12	Assessment experimental design and analysis [non-recoverable]	Group presentation	No Presential	10:00	50%	/ 10	CE-DIPO02

7.1.2. Global examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
17	Final written exam	Written test	Face-to-face	03:00	100%	5 / 10	CE-DIPO02 CB07

7.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Final written exam	Written test	Face-to-face	03:00	100%	5 / 10	CE-DIPO02 CB07

7.2. Assessment criteria

Grading criteria

The projects will be evaluated during their iterative development during the course. Grading of students will be based on:

- 1) Quality of the oral communication skills.
- 2) Ability to debate
- 3) Ability to understand concepts.

Progressive evaluation system

The evaluation is progressive along the semester, concrete dates for the presentations and submissions of the assignments are fixed with sufficient notice to the students.

100% of the grade is based on group-work during the semester which includes some presentations in the classroom, therefore it cannot be re-submitted in case a student fails the assignments (i.e. Usability test and Heuristics assignments), but there are not minimal grades per assignment.

The evaluation activities and their concrete weight in the grading are described in "Continuous evaluation" ("Evaluación progresiva") above.

Global evaluation process

For those students that are not able to obtain in total a 5 over 10 in the progressive evaluation, either must finish a concrete milestone they haven't passed (upon agreement with the professor), or a final exam that replace 100% of the grade.

This is described in "Global evaluation" ("Evaluación global") above.

Extraordinary evaluation

The extraordinary evaluation exists for students unable to pass the course during the semester. For that

extraordinary evaluation students either must finish a concrete milestone they haven't passed (upon agreement with the professor), or a final exam that replace 100% of the grade.

8. Teaching resources

8.1. Teaching resources for the subject

Name	Type	Notes
Moodle	Web resource	https://moodle.upm.es/titulaciones/oficiales
Interaction Design: Beyond Human-Computer Interaction.	Bibliography	Helen Sharp, Yvonne Rogers, Jenny Preece. 3ª Edición. John Wiley & Sons, 2011.
Usability Engineering	Bibliography	Jakob Nielsen. AP Professional, 1993.
Basics of Software Engineering Experimentation	Bibliography	http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.707.5949&rep=rep1&type=pdf

9. Other information

9.1. Other information about the subject

This course contributes to the objectives 4 and 10 of the UN Sustainable Development Goals.

Note 1: please, always ask for an appointment before visiting a professor.

Note 2: please note that concrete dates for the assignments will be informed at the beginning of the course.