ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000874 - User Experience And Mobile Interaction

DEGREE PROGRAMME

10AM - Master Universitario En Ingenieria Del Software

ACADEMIC YEAR & SEMESTER

2023/24 - Semester 1

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Learning guide

1. Description

1.1. Subject details

Name of the subject	103000874 - User Experience And Mobile Interaction
No of credits	6 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 *
Ricardo Imbert Paredes (Subject coordinator)	D-5112	ricardo.imbert@upm.es	Tu - 15:00 - 18:00 W - 15:00 - 18:00 It is advisable to confirm by email the availability of the professor
Jose Maria Barambones Ramirez	5106	j.barambones@upm.es	M - 10:00 - 12:00 Tu - 10:00 - 12:00 Th - 12:00 - 14:00 It is advisable to confirm by email the

			availability of the professor

* 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

CE14 - Comprender lo que pueden y no pueden conseguir las prácticas actuales de ingeniería del software, y sus limitaciones y su posible futura evolución.

3.2. Learning outcomes

RA102 - RA102 - Understand the particularities of the user experience beyond usability, considering emotions

RA103 - RA103 - Understand the particularities of user-centered design in mobile platforms and ubiquitous computing.

RA104 - RA104 - Apply techniques and processes for prototyping, developing, and refining interactive digital systems in different technological platforms.

* 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 course will be focused on designing mobile interactions with good user experience (UX). Contents of the course include: UX as a broadening of the scope of usability, design concepts, global user interfaces, designing for mobile experiences, interaction design patterns for mobile applications, mobile wireframes and prototypes and platform-specific design guidelines.

4.2. Syllabus

1. Introduction to UX and mobile interaction

2. Context and specific needs related solution

3. Design of memorable experiences

4. UX & UI: Visual principles

5. UX in the product design

6. Mobile prototyping

7. Design guidelines

8. Evaluation of the UX

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5. Schedule

5.1. Subject schedule*

Week	Classroom activities	Laboratory activities	Distant / On-line	Assessment activities
1	**1. Introduction to UX&MI** Duration: 03:00 Lecture			
2	**2. Context and specific needs related solution** Duration: 01:00 Cooperative activities			**Affinity diagraming (needs)** Group work Continuous assessment Presential Duration: 02:00
3	**2. Context and specific needs related solution** Duration: 01:00 Cooperative activities			**Value proposition canvas exercise** Group work Continuous assessment Presential Duration: 02:00
4	**2. Context and specific needs related solution** Duration: 00:30 Lecture			**Personas workshop** Other assessment Continuous assessment Presential Duration: 02:30
5	**3. Design of memorable experiences** Duration: 00:30 Lecture **3. Design of memorable experiences** Duration: 02:00 Cooperative activities			**User profiles, empathy map and refinement of value proposition** Group work Continuous assessment Not Presential Duration: 00:00 **User journey map exercise** Group presentation Continuous assessment Presential Duration: 00:30
6	**4. UX&UI: Visual principles** Duration: 01:00 Lecture **4. UX&UI: Visual principles** Duration: 01:00 Cooperative activities			**Contrast exercise** Group work Continuous assessment Presential Duration: 01:00 **Assignment about color observation** Individual work Continuous assessment and final examination Not Presential Duration: 00:00

7	4. UX&UI: Visual principles Duration: 00:15 Lecture 4. UX&UI: Visual principles Duration: 01:30 Cooperative activities			Assignment about typefaces Individual work Continuous assessment and final examination Not Presential Duration: 00:00 Mood board exercise Group work Continuous assessment Presential Duration: 00:00
8	5. UX in the product design Duration: 03:00 Cooperative activities			
9	5. UX in the product design Duration: 03:00 Cooperative activities			Assignment about product design Group work Continuous assessment Presential Duration: 00:00
10	6. Mobile prototyping Duration: 03:00 Cooperative activities			
11	7. Design guidelines Duration: 00:15 Lecture 7. Design guidelines Duration: 00:15 Lecture			Analysis of mobile apps with UX problems Group work Continuous assessment and final examination Not Presential Duration: 00:00
12	6. Mobile prototyping Duration: 03:00 Cooperative activities			
13	8. UX evaluation Duration: 00:30 Lecture 8. UX evaluation Duration: 02:30 Cooperative activities			Assignment about 5 seconds test Group work Continuous assessment Presential Duration: 00:00
14	8. UX evaluation Duration: 00:30 Lecture 8. UX evaluation Duration: 02:30 Cooperative activities			Assignment about UEQ Group work Continuous assessment Presential Duration: 00:00
15				
16				
17				Mobile prototype evaluation assignment Group work Continuous assessment Not Presential Duration: 00:00 Student implication and participation Other assessment Continuous assessment Presential Duration: 00:00

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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.

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6. Activities and assessment criteria

6.1. Assessment activities

6.1.1. Assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
2	Affinity diagraming (needs)	Group work	Face-to-face	02:00	1.44%	0 / 10	CE13
3	Value proposition canvas exercise	Group work	Face-to-face	02:00	3.96%	0 / 10	CE14 CE13
4	Personas workshop	Other assessment	Face-to-face	02:30	5.4%	0 / 10	CE13
5	User profiles, empathy map and refinement of value proposition	Group work	No Presential	00:00	10.8%	0 / 10	CE13 CE14
5	User journey map exercise	Group presentation	Face-to-face	00:30	7.2%	0 / 10	CE14
6	Contrast exercise	Group work	Face-to-face	01:00	7.2%	0 / 10	CE14
6	Assignment about color observation	Individual work	No Presential	00:00	7.2%	0 / 10	CE14
7	Assignment about typefaces	Individual work	No Presential	00:00	7.2%	0 / 10	CE13
7	Mood board exercise	Group work	Face-to-face	00:00	7.2%	0 / 10	
9	Assignment about product design	Group work	Face-to-face	00:00	7.2%	0 / 10	CE13 CE14
11	Analysis of mobile apps with UX problems	Group work	No Presential	00:00	7.2%	0 / 10	CE13 CE14
13	Assignment about 5 seconds test	Group work	Face-to-face	00:00	7.2%	0 / 10	CE13
14	Assignment about UEQ	Group work	Face-to-face	00:00	7.2%	0 / 10	CE13
17	Mobile prototype evaluation assignment	Group work	No Presential	00:00	7.2%	0 / 10	CE13 CE14
17	Student implication and participation	Other assessment	Face-to-face	00:00	6.4%	0 / 10	

6.1.2. Global examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
6	Assignment about color observation	Individual work	No Presential	00:00	7.2%	0 / 10	CE14

7	Assignment about typefaces	Individual work	No Presential	00:00	7.2%	0 / 10	CE13
11	Analysis of mobile apps with UX problems	Group work	No Presential	00:00	7.2%	0 / 10	CE13 CE14

6.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Mobile prototype refactoring and evaluation	Group work	Face-to-face	00:00	7.2%	0 / 10	CE13 CE14
Assignment about color observation	Individual work	Face-to-face	00:00	7.2%	0 / 10	CE14
Assignment about typefaces	Individual work	Face-to-face	00:00	7.2%	0 / 10	CE13
Assignment about 5 seconds test	Group work	Face-to-face	00:00	7.2%	0 / 10	CE13
Assignment about UEQ	Group work	Face-to-face	00:00	7.2%	0 / 10	CE13
Analysis of mobile apps with UX problems	Group work	Face-to-face	00:00	7.2%	0 / 10	CE13 CE14

6.2. Assessment criteria

Progressive evaluation

The subject is graded following a continuous assessment.

The subject's progressive evaluation consist of:

- *Individual assignments (14,4% of the final grade):* the student must complete several individual assignments related to some specific aspects of the subject. These activities **are recoverable** in the global and extraordinary evaluation, always that they had been failed (grade below 5).
- *Group assignments (79,2% of the final grade):* the purpose of the group assignments is to learn basic concepts and techniques by applying them to a product that will be developed by the students in an incremental and iterative way during the semester. That means that the assignments corresponding to the last steps (prototype refactoring, prototype evaluation, 5 seconds test and UEQ) are **the only recoverable ones**. Since these products are delivered the day before the final presentation, it is impossible to evaluate them in the global evaluation. Therefore, they will be only recoverable in the extraordinary evaluation. However, the group activity "Analysis of mobile apps with UX problems (7,2% of the final grade) is also recoverable in both the global and extraordinary evaluation, since it is not part of the whole project.
- *Student participation (6,4% of the final grade):* a critical mindset and the analysis skills from the student are valued. These activities are **not recoverable**, either in the global evaluation or in the final evaluation, since

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it is the student participation during the classes what it is evaluated.

The student passes the subject only if 5 or more points on 10 are obtained at the end of the course, regarding the following criteria:

FINAL GRADE = 14,4% Individual assignments + 79,2% Group assignments + 6,4% Student participation

Global evaluation

When failed during the progressive evaluation, the student may have a new opportunity to pass the subject repeating the recoverable failed parts. Since these parts cover a 21,6% of the final grade this will be the margin for passing the subject during the global evaluation.

Extraordinary evaluation

For the extraordinary term evaluation the student can repeat the following activities, only if they are graded under 5:

- The correction of the mobile HiFi prototype, taking into account the errors made and the results of the evaluation performed during the ordinary period, and its evaluation (7,2% of the final grade).
- The analysis of mobile apps with UX problems (7,2%).
- The evaluation of the HiFi prototype UX through the technique of the 5 seconds test (7,2% of the final grade).
- The evaluation of the HiFi prototype UX through the UEQ technique (7,2% of the final grade).
- The individual assignment about color observation (7,2%).
- The individual assignment about typefaces (7,2%).

Zero tolerance against fraud

If fraudulent acts are detected during the development of evaluation tests, the provisions of article 13 of the UPM Evaluation Regulations approved by the Governing Council on May 26, 2022 will apply.

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7. Teaching resources

7.1. Teaching resources for the subject

Name	Type	Notes
Norman, D. (2013) The Design of Everyday Things. Zone Books	Bibliography	UX and general design essential
Griffiths, S. (2015) Mobile App UX Principles. Improving user experience and optimising conversion. Google (https://www.thinkwithgoogle.com/intl/en-gb/articles/mobile-app-ux-principles-improving-user-experience-and-optimising-conversion.html)	Bibliography	UX in mobile design
Mendoza, A (2013) Mobile User Experience. Patterns to Make Sense of it All. Morgan Kaufmann	Bibliography	UX in mobile design
Doncaster, P. (2014) The UX Five Second Rules. Guidelines for User Experience Design's Simplest Testing Technique. Elsevier	Bibliography	UX testing
Subject's Moodle site	Web resource	https://moodle.upm.es/titulaciones/oficiales/course/view.php?id=7964
Subject MS Teams group	Web resource	Live online lectures, workshops and presentations

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8. Other information

8.1. Other information about the subject