



POLITÉCNICA

INTERNATIONAL  
CAMPUS OF  
EXCELLENCE

COORDINATION PROCESS OF  
LEARNING ACTIVITIES  
PR/CL/001



E.T.S. de Ingenieros  
Informáticos

# ANX-PR/CL/001-01

## LEARNING GUIDE

### SUBJECT

**103000695 - User experience and mobile interaction**

### DEGREE PROGRAMME

10AQ - Eit Digital Master's Programme In Human Computer Interaction And Design

### ACADEMIC YEAR & SEMESTER

2018/19 - Semester 1

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## 1. Description

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### 1.1. Subject details

<b>Name of the subject</b>	103000695 - User experience and mobile interaction
<b>No of credits</b>	6 ECTS
<b>Type</b>	Compulsory
<b>Academic year of the programme</b>	First year
<b>Semester of tuition</b>	Semester 1
<b>Tuition period</b>	September-January
<b>Tuition languages</b>	English
<b>Degree programme</b>	10AQ - Eit digital master's programme in human computer interaction and design
<b>Centre</b>	10 - Escuela Tecnica Superior de Ingenieros Informaticos
<b>Academic year</b>	2018-19

## 2. Faculty

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### 2.1. Faculty members with subject teaching role

<b>Name and surname</b>	<b>Office/Room</b>	<b>Email</b>	<b>Tutoring hours *</b>
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

Xavier Ferre Grau	D-5112	xavier.ferre@upm.es	W - 10:00 - 11:00 W - 13:00 - 14:00 Th - 10:00 - 14:00 It is advisable to confirm by email the availability of the professor
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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. Skills and learning outcomes \*

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#### 3.1. Skills to be learned

CE01 - Capacidad para la integración de tecnologías, aplicaciones, servicios y sistemas propios de la Ingeniería Informática, con carácter generalista, y en contextos más amplios y multidisciplinares.

CE04 - Capacidad para modelar, diseñar, definir la arquitectura, implantar, gestionar, operar, administrar y mantener aplicaciones, redes, sistemas, servicios y contenidos informáticos.

CE08 - Capacidad para analizar las necesidades de información que se plantean en un entorno y llevar a cabo en todas sus etapas el proceso de construcción de un sistema de información.

CE13 - Capacidad para utilizar y desarrollar metodologías, métodos, técnicas, programas de uso específico, normas y estándares de computación gráfica.

CE14 - Capacidad para conceptualizar, diseñar, desarrollar y evaluar la interacción persona-ordenador de productos, sistemas, aplicaciones y servicios informáticos

CE16 - Habilidad para hacer conexiones entre los deseos y necesidades del consumidor o cliente y lo que la tecnología puede ofrecer

CE18 - Capacidad para comprender el mercado, sus hábitos y necesidades de productos o servicios tecnológicos

### 3.2. Learning outcomes

RA14 - Choose a user interface technology platform that is most suitable for a new system

RA17 - Understand techniques, technologies and processes that allow to prototype, develop and improve digital interactive systems based on various user interface technology platforms

RA10 - Understand the concept of 'user experience', and learn how to design interactive system that generate a good user experience

\* 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

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### 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. Evaluation of the UX
6. Mobile prototyping
7. Design guidelines
8. UX within the organization

## 5. Schedule

### 5.1. Subject schedule\*

Week	Face-to-face classroom activities	Face-to-face laboratory activities	Other face-to-face activities	Assessment activities
1	<b>1. Introduction to UX&amp;MI</b> Duration: 02:00 Lecture			
2	<b>2. Context and specific needs related solution</b> Duration: 01:00 Cooperative activities			<b>Presentation of the design observation exercise</b> Individual presentation Continuous assessment Duration: 01:00  <b>Assignment about design observation</b> Individual presentation Final examination Duration: 01:00  <b>Affinity diagraming (needs)</b> Group work Continuous assessment and final examination Duration: 01:00
3	<b>2. Context and specific needs related solution</b> Duration: 01:00 Cooperative activities			<b>Value proposition canvas exercise</b> Group work Continuous assessment and final examination Duration: 02:00
4	<b>2. Context and specific needs related solution</b> Duration: 00:30 Lecture			<b>Use context survey and interviews</b> Group work Continuous assessment and final examination Duration: 01:30
5	<b>3. Design of memorable experiences</b> Duration: 00:30 Lecture  <b>3. Design of memorable experiences</b> Duration: 02:00 Cooperative activities			<b>User journey map exercise</b> Group presentation Continuous assessment and final examination Duration: 00:30
6	<b>4. UX&amp;UI: Visual principles</b> Duration: 01:00 Lecture  <b>4. UX&amp;UI: Visual principles</b> Duration: 01:00 Cooperative activities			<b>Contrast exercise</b> Group work Continuous assessment and final examination Duration: 01:00  <b>Assignment about color observation</b> Individual work Continuous assessment and final examination Duration: 00:00  <b>Assignment about typefaces</b> Individual work

				Continuous assessment and final examination Duration: 00:00
7	<p><b>4. UX&amp;UI: Visual principles</b> Duration: 00:15 Lecture</p> <p><b>4. UX&amp;UI: Visual principles</b> Duration: 01:30 Cooperative activities</p> <p><b>8. UX within the organization</b> Duration: 00:15 Lecture</p>			<p><b>Mood board exercise</b> Group work Continuous assessment and final examination Duration: 00:00</p> <p><b>Affinity diagramming (roles)</b> Group work Continuous assessment and final examination Duration: 01:00</p>
8	<p><b>8. UX within the organization</b> Duration: 03:00 Cooperative activities</p>			
9	<p><b>8. UX within the organization</b> Duration: 03:00 Cooperative activities</p>			
10	<p><b>8. UX within the organization</b> Duration: 03:00 Cooperative activities</p>			<p><b>Assignment about design sprint</b> Group work Continuous assessment and final examination Duration: 00:00</p>
11	<p><b>5. UX evaluation</b> Duration: 00:45 Lecture</p>			<p><b>Assignment about 5 seconds test</b> Group work Continuous assessment and final examination Duration: 00:00</p>
12	<p><b>5. UX evaluation</b> Duration: 00:30 Lecture</p> <p><b>5. UX evaluation</b> Duration: 02:30 Cooperative activities</p>			<p><b>Assignment about UEQ</b> Group work Continuous assessment and final examination Duration: 00:00</p>
13	<p><b>6. Mobile prototyping</b> Duration: 03:00 Cooperative activities</p>			
14	<p><b>7. Design guidelines</b> Duration: 00:15 Lecture</p> <p><b>7. Design guidelines</b> Duration: 00:15 Lecture</p>			<p><b>Debate exercise (guidelines 1)</b> Individual work Continuous assessment Duration: 01:15</p> <p><b>Debate exercise (guidelines 2)</b> Individual work Continuous assessment Duration: 01:15</p> <p><b>Assignment about mobile design guidelines</b> Individual work Final examination Duration: 00:00</p>



15	<b>6. Mobile prototyping</b> Duration: 03:00 Cooperative activities			<b>Prototype evaluation</b> Group work Continuous assessment and final examination Duration: 01:00
16				
17				<b>Presentation of the prototypes</b> Group presentation Continuous assessment and final examination Duration: 03:00  <b>Proposed class debates and student implication and participation</b> Other assessment Continuous assessment Duration: 00:00

The independent study hours are training activities during which students should spend time on individual study or individual assignments.

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 subject schedule is based on a previous theoretical planning of the subject plan and might go through experience some unexpected changes along throughout the academic year.

## 6. Activities and assessment criteria

### 6.1. Assessment activities

#### 6.1.1. Continuous assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
2	Presentation of the design observation exercise	Individual presentation	Face-to-face	01:00	5.2%	0 / 10	CE14
2	Affinity diagraming (needs)	Group work	Face-to-face	01:00	5.2%	0 / 10	CE08 CE16
3	Value proposition canvas exercise	Group work	Face-to-face	02:00	5.2%	0 / 10	CE14
4	Use context survey and interviews	Group work	Face-to-face	01:30	5.2%	0 / 10	CE14
5	User journey map exercise	Group presentation	Face-to-face	00:30	5.2%	0 / 10	CE16 CE14 CE08
6	Contrast exercise	Group work	Face-to-face	01:00	5.2%	0 / 10	CE04 CE14
6	Assignment about color observation	Individual work	No Presential	00:00	5.2%	0 / 10	CE18 CE08 CE14
6	Assignment about typefaces	Individual work	No Presential	00:00	5.2%	0 / 10	CE14
7	Mood board exercise	Group work	Face-to-face	00:00	5.2%	0 / 10	CE16 CE13 CE14
7	Affinity diagraming (roles)	Group work	Face-to-face	01:00	5.2%	0 / 10	CE08 CE04
10	Assignment about design sprint	Group work	Face-to-face	00:00	15.6%	0 / 10	CE14 CE16 CE13
11	Assignment about 5 seconds test	Group work	Face-to-face	00:00	5.2%	0 / 10	CE04 CE14
12	Assignment about UEQ	Group work	Face-to-face	00:00	5.2%	0 / 10	CE08 CE14
14	Debate exercise (guidelines 1)	Individual work	Face-to-face	01:15	%	0 / 10	CE13
14	Debate exercise (guidelines 2)	Individual work	Face-to-face	01:15	%	0 / 10	CE13

15	Prototype evaluation	Group work	Face-to-face	01:00	5.2%	0 / 10	CE08 CE14
17	Presentation of the prototypes	Group presentation	Face-to-face	03:00	10.4%	0 / 10	CE04 CE14
17	Proposed class debates and student implication and participation	Other assessment	Face-to-face	00:00	6.4%	0 / 10	CE14

### 6.1.2. Final examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
2	Assignment about design observation	Individual presentation	No Presential	01:00	5.2%	0 / 10	CE14
2	Affinity diagraming (needs)	Group work	Face-to-face	01:00	5.2%	0 / 10	CE08 CE16
3	Value proposition canvas exercise	Group work	Face-to-face	02:00	5.2%	0 / 10	CE14
4	Use context survey and interviews	Group work	Face-to-face	01:30	5.2%	0 / 10	CE14
5	User journey map exercise	Group presentation	Face-to-face	00:30	5.2%	0 / 10	CE16 CE14 CE08
6	Contrast exercise	Group work	Face-to-face	01:00	5.2%	0 / 10	CE04 CE14
6	Assignment about color observation	Individual work	No Presential	00:00	5.2%	0 / 10	CE18 CE08 CE14
6	Assignment about typefaces	Individual work	No Presential	00:00	5.2%	0 / 10	CE14
7	Mood board exercise	Group work	Face-to-face	00:00	5.2%	0 / 10	CE16 CE13 CE14
7	Affinity diagraming (roles)	Group work	Face-to-face	01:00	5.2%	0 / 10	CE08 CE04
10	Assignment about design sprint	Group work	Face-to-face	00:00	15.6%	0 / 10	CE14 CE16 CE13
11	Assignment about 5 seconds test	Group work	Face-to-face	00:00	5.2%	0 / 10	CE04 CE14
12	Assignment about UEQ	Group work	Face-to-face	00:00	5.2%	0 / 10	CE08 CE14
14	Assignment about mobile design guidelines	Individual work	No Presential	00:00	6.4%	0 / 10	CE13
15	Prototype evaluation	Group work	Face-to-face	01:00	5.2%	0 / 10	CE08 CE14

17	Presentation of the prototypes	Group presentation	Face-to-face	03:00	10.4%	0 / 10	CE04 CE14
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### 6.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Activities of UX&MI	Other assessment	Face-to-face	00:00	100%	5 / 10	CE01 CE04 CE08 CE18 CE16 CE13 CE14

## 6.2. Assessment criteria

The subject is graded following a continuous assessment.

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 = 15,6% Individual assignments + 78% Group assignments + 6,4% Debate activities and student participation**

The final grade will be obtained from three components: (1) individual exercises performed and/or presented in the classroom; (2) group exercises performed and/or presented in the classroom; and (3) debate activities and participation and implication of the student in the subject.

If a student is not required to participate in a debate, their grade of the "Debate activities and student participation" will correspond completely to their participation and implication in the classroom. Otherwise, their grade because of the debate will be a maximum of a 1,2% and the participation and implication in the classroom will be weighed 5,2%.

When failed, for the extraordinary term evaluation the student shall repeat at least all those activities graded below 5, following the only final test evaluation mode. The final grade will be the composition of the grade of the repeated

activities and the grade obtained for the non repeated during the course. If the student does not repeat any of the failed activities during the ordinary course, they will be considered failed.

## 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 ( <a href="https://www.thinkwithgoogle.com/intl/en-gb/articles/mobile-app-ux-principles-improving-user-experience-and-optimising-conversion.html">https://www.thinkwithgoogle.com/intl/en-gb/articles/mobile-app-ux-principles-improving-user-experience-and-optimising-conversion.html</a> )	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	<a href="https://moodle.upm.es/titulaciones/oficiales/course/view.php?id=7964">https://moodle.upm.es/titulaciones/oficiales/course/view.php?id=7964</a>

## 8. Other information

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### 8.1. Other information about the subject

The classroom percentage activities (30,1%) is lower than the required (35%) due to the restrictions imposed from the School direction regarding to the standard classroom hours for master studies.