



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

**103000872 - Evaluation Of Interactive Systems**

### DEGREE PROGRAMME

10AZ - Master Universitario en Innovación Digital

### ACADEMIC YEAR & SEMESTER

2019/20 - Semester 2

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## 1. Description

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### 1.1. Subject details

<b>Name of the subject</b>	103000872 - Evaluation Of Interactive Systems
<b>No of credits</b>	3 ECTS
<b>Type</b>	Optional
<b>Academic year of the programme</b>	First year
<b>Semester of tuition</b>	Semester 2
<b>Tuition period</b>	February-June
<b>Tuition languages</b>	English
<b>Degree programme</b>	10AZ - Master Universitario en Innovación Digital
<b>Centre</b>	10 - Escuela Tecnica Superior de Ingenieros Informaticos
<b>Academic year</b>	2019-20

## 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>
Cristian Moral Martos	5110	cristian.moral@upm.es	M - 10:00 - 12:00 M - 14:00 - 15:00 W - 12:00 - 15:00 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 - 12:00 - 14:00 Please, ask for an appointment by

			email.
Oscar Dieste Tubio	6203	oscar.dieste@upm.es	W - 17:30 - 20:30 Th - 18:00 - 20:30 F - 19:00 - 20:30 Please, ask for an appointment by email.

\* 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

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#### 3.1. Recommended (passed) subjects

- Introduction To Human-computer Interaction
- Design Methods For Human-computer Interaction

#### 3.2. Other recommended learning outcomes

The subject - other recommended learning outcomes, are not defined.

### 4. Skills and learning outcomes \*

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#### 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

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

RA42 - Understand and carry experiments to evaluate interactive systems

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

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### 5.1. Brief description of the subject

This course teaches methods to perform usability evaluation 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
  - 1.1. Definition of evaluation
  - 1.2. Types of evaluation
2. Inspection methods
  - 2.1. Inspection definition and objectives
  - 2.2. Heuristics evaluation
  - 2.3. Cognitive Walkthrough Method
  - 2.4. Pluralistic Usability Walkthrough
3. Interrogation techniques and qualitative analysis
  - 3.1. Interviews
  - 3.2. Questionnaires
  - 3.3. Surveys
4. Usability test

- 4.1. Definition and classification of usability tests
- 4.2. Planning a usability test
- 4.3. Recruiting participants
- 4.4. Running a usability test
- 4.5. Analysis and reporting
- 5. Experimental Design
- 6. Quantitative analysis and reporting
  - 6.1. Statistical analysis
  - 6.2. Reporting

## 6. Schedule

### 6.1. Subject schedule\*

Week	Face-to-face classroom activities	Face-to-face laboratory activities	Other face-to-face activities	Assessment activities
1	<b>1. Introduction</b> Duration: 02:00  <b>2.1 Inspection methods. 2.2 Heuristics evaluation</b> Duration: 02:00			
2	<b>2.2 Understanding Heuristics</b> Duration: 02:00			<b>Presentation of inspection evaluation</b>  Continuous assessment Duration: 02:00
3	<b>3. Interrogation techniques and qualitative analysis</b> Duration: 02:00  <b>4.1 Definition and classification of usability tests. 4.2 Planning a usability test</b> Duration: 02:00			<b>Assessment of qualitative analysis</b>  Continuous assessment Duration: 08:00
4	<b>4.2 Planning a usability test</b> Duration: 02:00  <b>4.3 Recruiting participants. 4.4 Running a usability test.</b> Duration: 01:00			
5	<b>Analysing and reporting a usability test</b> Duration: 02:00			<b>Assessment of usability test report</b>  Continuous assessment Duration: 02:00
6	<b>5. Experimental Desing</b> Duration: 03:00			
7	<b>6.1 Statistical analysis. 6.2 Reporting</b> Duration: 02:00			<b>Assessment Experimental Design and analysis</b>  Continuous assessment Duration: 02:00

8				
9				
10				
11				
12				
13				
14				
15				
16				Final written exam Final examination Duration: 03:00
17				

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.



## 7. Activities and assessment criteria

### 7.1. Assessment activities

#### 7.1.1. Continuous assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
2	Presentation of inspection evaluation		Face-to-face	02:00	20%	/ 10	CE-DIPO02 CB07
3	Assessment of qualitative analysis		No Presential	08:00	25%	/ 10	CE-DIPO02 CB07
5	Assessment of usability test report		Face-to-face	02:00	25%	/ 10	CE-DIPO02 CB07
7	Assessment Experimental Design and analysis		Face-to-face	02:00	30%	/ 10	CE-DIPO02

#### 7.1.2. Final examination

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

## 7.2. Assessment criteria

Quality of the oral communication skills.

Ability to debate.

Ability to understand concepts.

## 8. Teaching resources

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### 8.1. Teaching resources for the subject

Name	Type	Notes
Moodle	Web resource	<a href="https://moodle.upm.es/titulaciones/oficiales">https://moodle.upm.es/titulaciones/oficiales</a>
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.

## 9. Other information

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### 9.1. Other information about the subject

Note: please bear in mind tutoring hours may change along the course. Please, ask for an appointment in advance.