ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000691 - Design methods for human-computer interaction

DEGREE PROGRAMME

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

ACADEMIC YEAR & SEMESTER

2018/19 - Semester 1

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....5
7. Activities and assessment criteria....7
8. Teaching resources....8

1. Description

1.1. Subject details

Name of the subject	103000691 - Design methods for human-computer interaction
No of credits	3 ECTS
Type	Compulsory
Academic year ot the programme	First year
Semester of tuition	Semester 1
Tuition period	September-January
Tuition languages	English
Degree programme	10AQ - Eit digital master's programme in human computer interaction and design
Centre	10 - Escuela Tecnica Superior de Ingenieros Informaticos
Academic year	2018-19

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
Elena Villalba Mora	D-5110	elena.villalba@upm.es	M - 12:00 - 15:00 F - 12:00 - 15:00 It is advised to ask for an appointment by email.
Cristian Moral Martos (Subject coordinator)	D-5110	cristian.moral@upm.es	M - 12:00 - 15:00 W - 09:00 - 12:00 It is advised to 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

3.1. Recommended (passed) subjects

- Introduction to human-computer interaction

3.2. Other recommended learning outcomes

El plan de estudios Eit Digital Master's Programme In Human Computer Interaction And Design no tiene definidos otros conocimientos previos para esta asignatura.

4. Skills and learning outcomes *

4.1. Skills to be learned

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

CG05 - Aplicación de los métodos de resolución de problemas más recientes o innovadores y que puedan implicar el uso de otras disciplinas

CG08 - Comprensión amplia de las técnicas y métodos aplicables en una especialización concreta, así como de sus límites

4.2. Learning outcomes

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

RA7 - Run different qualitative techniques to study the context of use (user, tasks, and environment) of an interactive system

RA9 - Understand the main heuristics that have to be considered to design a usable interactive system.

RA12 - Understand methods to communicate the design intent

RA8 - Analyse qualitative data to specify the design requirements related to the context of use

RA11 - Model the user and to design adaptive user interfaces based on the user

RA6 - Understand how to design an interactive system using a user-centred approach.

RA4 - Communicate and describe the results of the stages of the user-centred design process

* 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 provides practical knowledge of how to use well-known and established HCI design methods as well as theoretical knowledge of how to think and reason on them during the design process. In this course we will approach interaction design from the perspective of user-centred design. Interaction design techniques will be presented to explore and refine the behaviour of products and services.

This course will follow the "Introduction to HCI" course.

5.2. Syllabus

1. Analysing the context of use
    1.1. Observation techniques
    1.2. Interrogation techniques
2. Specifying the context of use
    2.1. Methods for User specification
    2.2. Methods for Tasks specification
3. Interaction design
    3.1. Task scenarios and storyboards
    3.2. Navigation map
    3.3. Design heuristics
4. Low-fidelity prototyping
5. High-fidelity prototyping

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				
2				
3				
4				
5				
6				
7				
8	**Course presentation** Duration: 00:15 Lecture **1. Analysing the context of use** Duration: 01:15 Lecture **Understanding the analysis of the context of use. TTW.** Duration: 02:30 Additional activities			
9	**2. Specifying the context of use. Flipped classroom.** Duration: 01:30 Additional activities **Understanding the specification of the context of use. TTW.** Duration: 01:30 Additional activities			
10	**3. Interaction design** Duration: 00:30 Lecture **Understanding the interaction design. TTW.** Duration: 01:00 Additional activities			**Assessment of the specification of the context of use. Presentation.** Group presentation Continuous assessment Duration: 01:30
11	**4. Low-fidelity prototyping** Duration: 00:30 Lecture **Understanding the low-fidelity prototyping. TTW.** Duration: 01:00 Additional activities			**Assessment of the interaction design. Presentation.** Group presentation Continuous assessment Duration: 01:30

12	**Understanding the low-fidelity prototyping. TTW.** Duration: 03:00 Additional activities			
13	**5. High-fidelity prototyping.** Duration: 00:30 Additional activities **Understanding the high-fidelity prototyping. TTW.** Duration: 01:00 Additional activities			**Assessment of the low-fidelity prototyping. Presentation.** Group presentation Continuous assessment Duration: 01:30
14	**Understanding the high-fidelity prototyping. TTW.** Duration: 03:00 Additional activities			
15				**Assessment of the high-fidelity prototyping. Presentation.** Group presentation Continuous assessment Duration: 03:00
16				**Written assignment.** Written test Final examination Duration: 03:00 **Written assignment.** Written test Continuous assessment 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 theorical planning of the subject plan and might go to 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
10	Assessment of the specification of the context of use. Presentation.	Group presentation	Face-to-face	01:30	10%	4 / 10	CG05 CG08 CE14
11	Assessment of the interaction design. Presentation.	Group presentation	Face-to-face	01:30	10%	4 / 10	CG08 CE14
13	Assessment of the low-fidelity prototyping. Presentation.	Group presentation	Face-to-face	01:30	30%	4 / 10	CG08 CE14
15	Assessment of the high-fidelity prototyping. Presentation.	Group presentation	Face-to-face	03:00	30%	4 / 10	CG08 CE14
16	Written assignment.	Written test	Face-to-face	03:00	20%	5 / 10	CG05 CG08 CE14

7.1.2. Final examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
16	Written assignment.	Written test	Face-to-face	03:00	100%	5 / 10	CG05 CG08 CE14

7.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Written assignment	Written test	Face-to-face	03:00	100%	5 / 10	CG05 CG08 CE14

7.2. Assessment criteria

In the presentations, the following abilities will be evaluated:

- Quality of the oral communication skills
- Degree of understanding of the course content
- Ability to debate
- Active participation in class

The written exam will be make in common with the "Introduction to HCI" course, and then it will deal with all the topics taught in both courses.

8. Teaching resources

8.1. Teaching resources for the subject

Name	Type	Notes
Moodle of the course	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.
Software for Use: A Practical Guide to the Models and Methods of Usage-Centered Design	Bibliography	Larry L. Constantine, Lucy A. D. Lockwood. Addison-Wesley, 1999.
Usability Engineering	Bibliography	Jakob Nielsen. AP Professional, 1993.