



POLITÉCNICA

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COORDINATION PROCESS OF
LEARNING ACTIVITIES
PR/CL/001



E.T.S. de Ingenieros
Informáticos

ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000869 - Introduction To Human-computer Interaction

DEGREE PROGRAMME

10AZ - Master Universitario en Innovación Digital

ACADEMIC YEAR & SEMESTER

2019/20 - Semester 1

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1. Description

1.1. Subject details

Name of the subject	103000869 - Introduction To Human-computer Interaction
No of credits	3 ECTS
Type	Optional
Academic year of the programme	First year
Semester of tuition	Semester 1
Tuition period	September-January
Tuition languages	English
Degree programme	10AZ - Master Universitario en Innovación Digital
Centre	10 - Escuela Tecnica Superior de Ingenieros Informaticos
Academic year	2019-20

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
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.
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.

* 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

CE-DIPO03 - Habilidad para hacer conexiones entre los deseos y necesidades del consumidor o cliente y lo que la tecnología puede ofrecer

CG03 - La capacidad de usar la lengua inglesa de manera competente, es decir, con capacitación para tareas complejas de trabajo y estudio.

3.2. Learning outcomes

RA37 - Understand the term usability and its attributes

RA10 - Understand the main heuristics that have to be considered to design a usable interactive system

RA39 - Understand the user-centred approach

RA38 - Understand how to process information and what are the limitations and diversity of human beings in their interaction with computer systems

* 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

An overview and introduction to the field of human-computer interaction. This course presents methods to elicit user requirements and structure the design process to be user-centred. Above all, the course will emphasize the importance of paying attention to user needs and cognitive functioning in order to design usable systems.

4.2. Syllabus

1. Introduction and conceptualization
 - 1.1. Introduction of Human Computer Interaction
 - 1.2. Understanding the concepts: User Interaction, Visual Design, User Experience
2. Usability
3. Introduction to design methods for HCI
 - 3.1. Design methods for HCI
 - 3.2. User-centred design
4. Human factors
5. Interaction styles and devices
6. Specific interaction paradigms
7. Introduction to Interaction Design. Heuristics. Visual Design

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	<p>1.1 Introduction to HCI Duration: 01:00</p> <p>1.2 Understanding the concepts Duration: 01:00</p> <p>2.1 Definition of usability. 2.2 Attributes of usability Duration: 02:00</p>			
2	<p>Understanding Usability Duration: 02:00</p>			<p>Assessment of usability attributes</p> <p>Continuous assessment Duration: 02:00</p>
3	<p>3. Introduction to Design Methods. User Centred Design Duration: 02:00</p> <p>4.1 Human factors Duration: 02:00</p>			
4	<p>3.2 Understanding human factors Duration: 02:00</p>			
5	<p>4.1 Interaction styles and devices Duration: 02:00</p>			<p>Analyse an interaction device</p> <p>Continuous assessment Duration: 02:00</p>
6	<p>5.1 Introduction to Interaction Design. Heuristics Duration: 02:00</p> <p>5.2 Introduction to Visual Design Duration: 02:00</p>			
7	<p>7.1 Specific interaction paradigm: virtual reality Duration: 02:00</p>			<p>Assessment of heuristics</p> <p>Continuous assessment Duration: 02:00</p>

8				
9				
10				
11				
12				
13				
14				
15				
16				Final Written Exam Continuous assessment Duration: 03:00 Written final assignment 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.

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	Assessment of usability attributes		Face-to-face	02:00	20%	/ 10	CG03 CE-DIPO03
5	Analyse an interaction device		Face-to-face	02:00	20%	/ 10	CG03 CE-DIPO03
7	Assessment of heuristics		Face-to-face	02:00	20%	/ 10	CG03
16	Final Written Exam		Face-to-face	03:00	40%	/ 10	CG03 CE-DIPO03

6.1.2. Final examination

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
16	Written final assignment		Face-to-face	03:00	100%	5 / 10	CG03 CE-DIPO03

6.1.3. Referred (re-sit) examination

Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
Written final assignment		Face-to-face	03:00	100%	5 / 10	CG03 CE-DIPO03

6.2. Assessment criteria

Quality of the oral communication skills.

Ability to debate.

Ability to understand concepts.

7. Teaching resources

7.1. 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.
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.
A Web for Everyone. Designing accessible user experiences	Bibliography	Horton, S.; Quesenbery, W. Rosenfeld. 2014.

8. Other information

8.1. Other information about the subject

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