

## Teaching guide

### Subject identification

<b>Subject</b>	11565 - Natural Interfaces
<b>Credits</b>	0.72 de presencials (18 hours) 2.28 de no presencials (57 hours) 3 de totals (75 hours).
<b>Group</b>	Group 1, 2S (Campus Extens)
<b>Teaching period</b>	Second semester
<b>Teaching language</b>	English

### Professors

Lecturers	Horari d'atenció als alumnes					
	Starting time	Finishing time	Day	Start date	Finish date	Office
Antoni Jaume Capó <a href="mailto:antoni.jaume@uib.es">antoni.jaume@uib.es</a>	15:30	16:30	Tuesday	14/09/2016	01/09/2017	D221 - Anselm Turmeda
Cristina Suemay Manresa Yee <a href="mailto:cristina.manresa@uib.es">cristina.manresa@uib.es</a>	11:30	12:30	Tuesday	12/09/2016	28/02/2017	221
	12:00	13:00	Thursday	30/01/2017	31/07/2017	221

### Contextualisation

Communication with technology is evolving to be to be more natural and intuitive. A natural interface is a system of human-computer interaction where the user operates through intuitive actions related to their daily behavior.

A natural interface allows interacting with a system or application without using control systems or input devices, like a mouse, alphanumeric keypad, stylus, touchpad or joystick. Instead of it, uses gestural movements oper through the human voice.

### Requirements

#### Recommendable

Programming and computer vision courses.

### Skills

#### Specific

- \* CE12 - Apply mathematical, statistical and artificial-intelligence methods to model, design and develop applications, services, intelligent systems and knowledge-based systems..

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### Generic

- \* CG8 - Integrate and apply the knowledge acquired and solve problems in new or little-known situations within broader (or multidisciplinary) contexts..

### Basic

- \* You may consult the basic competencies students will have to achieve by the end of the Master's degree at the following address: [http://estudis.uib.cat/master/comp\\_basiques/](http://estudis.uib.cat/master/comp_basiques/)

## Content

### Theme content

- Topic 1. Introduction of natural interaction
- Topic 2. Design of Natural User Interfaces
- Topic 3. Technologies for the development of natural interfaces

## Teaching methodology

### In-class work activities

Modality	Name	Typ. Grp.	Description	Hours
Theory classes	Lectures	Large group (G)	Lecturer will establish the theoretical and practical background. The lectures will include theoretical and practicals contents  Skills: CE12 and CG8	9
Practical classes	Practicals lessons	Large group (G)	Lecturer will establish the theoretical and practical background. The lectures will include theoretical and practicals contents  Skills: CE12 and CG8	9

At the beginning of the semester a schedule of the subject will be made available to students through the UIBdigital platform. The schedule shall at least include the dates when the continuing assessment tests will be conducted and the hand-in dates for the assignments. In addition, the lecturer shall inform students as to whether the subject work plan will be carried out through the schedule or through another way included in the Campus Extens platform.

### Distance education work activities

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Modality	Name	Description	Hours
Group or individual self-study	Theoretical / practical work	Theoretical / practical work	28
Group or individual self-study	Theoretical / practical work	Theoretical / practical work	29

### Specific risks and protective measures

The learning activities of this course do not entail specific health or safety risks for the students and therefore no special protective measures are needed.

### Student learning assessment

#### Theoretical / practical work

Modality	Group or individual self-study
Technique	Papers and projects ( <b>retrievable</b> )
Description	Theoretical / practical work
Assessment criteria	Skills CE12 and CG8

Final grade percentage: 50% with minimum grade 5

#### Theoretical / practical work

Modality	Group or individual self-study
Technique	Papers and projects ( <b>retrievable</b> )
Description	Theoretical / practical work
Assessment criteria	Skills CE12 and CG8

Final grade percentage: 50% with minimum grade 5

### Resources, bibliography and additional documentation

#### Basic bibliography

BraveNUIWorld. Designing Natural User Interfaces for Touch and Gesture. Daniel Wigdor and Dennis Wixon. Morgan Kaufmann, 2011  
Designing Gestural Interfaces: Touchscreens and Interactive Devices. Dan Saffer. O'Reilly, 2008

