UCLouvain

lsinf1311

2017

Human-computer interaction

5 credits	30.0 h + 15.0 h	Q1

Teacher(s)	Vanderdonckt Jean ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	1. Introduction • Fundamentals of Human-Computer Interaction and User Centered Design • Evolution of UI over time: from character to graphic, from real to virtual, from static to dynamic, from batch to highly interactive 1. UI software technology • Interaction devices and displays with users • Concret and abstract interactive objects • Interaction techniques (e.g., drag and drop), interaction styles (e.g., command language, direct manipulation) • Interaction media (e.g., trackball) • UI development environments (programming languages, toolkits, libraries, by demonstration, automated generation, computer-aided design) • Standard, norms and usability style guides (e.g., IBM CUA, ISO 9241) 1. External disciplines to UI • Input from cognitive psychology, prescriptive models • Theory of attention and perception • Usability engineering 1. UI development methods • Development life cycles and models (e.g., V, Spiral, ProdUser, Nabla) • Existing UI development methods (e.g., Muse, Trident, Diane+, SOMA) • Preliminary design (including task modeling) • Detailed design (including user modeling) • UI prototyping (fast, iterative) • UI evaluation methods: with vs without users
Aims	1 Students completing successfully this course will be able to • clarify the issues of human-computer interaction in order to design a user interface (UI) of an interactive application that is tailored to the user's task • master usual models to build a UI in order to use them wisely when designing an interactive application Students will have developed skills and operational methodology. In particular, they have developed their ability to • use tools and technologies appropriate to the development of the interface of an interactive application - - - - *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Inline resources	http://icampus.uclouvain.be/claroline/course/index.php?cid=LSINF1311
Bibliography	• R.M. Baecker, W.A.S. Buxton, Readings in Human-Computer Interaction, Morgan Kaufmann, San Mateo, 1987. • D. Olsen, Developing User Interfaces, Morgan Kaufman, San Francisco, 1998. • B. Shneiderman, Designing the User Interface: Strategies for Effective Human-Computer Interaction, 3rd ed., Addison-Wesley, Reading, 1997. • J. Vanderdonckt, A. Puerta, Computer-Aided Design of User Interfaces II, Kluwer Academics, Dordrecht, 1999.
Faculty or entity in charge	INFO

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Linguistics	LING2M	5		
Master [120] in Information and Communication Science and Technology	STIC2M	5		
Additional module in computer science	LSINF110P	5		