LSINF2356

2012-2013

Human-computer interaction

5.0 credits	30.0 h + 15.0 h	2q

Teacher(s) :	Vanderdonckt Jean ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	-- 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 2 -- UI software technology -- Interaction devices and displays with users -- 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) -- External disciplines to HCI -- Input from cognitive psychology, prescriptive models -- Theory of attention and perception -- Usability engineering -- 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 :	This course is aimed at giving a student the capability to understand the major questions of Human-Computer Interaction (HCI) in order to develop a User Interface (UI) of an interactive application that is adapted to the user's task. The student will be asked to learn the models, methods, and languages that are typically used during the UI development life cycle. The student will be prompted to acquire some skills in using UI builders since the course is more oriented towards UI engineering. *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".*
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.
Cycle and year of study :	> Master [120] in Computer Science > Master [120] in Computer Science and Engineering > Bachelor in Computer Science > Master 120 of arts in Business engineering > Master [120] in Business Engineering > Master [120] in Linguistics
Faculty or entity in charge:	INFO