

Human-computer interaction			
Credits: 5 Semester 2 Compulsory: No			
Format	Lectures 24 h	Examples 16 h	Private study 68 h
Lecturers: Antonio Camurri, Gualtiero Volpe (UNIGE), D. Llorens (UJI)			
Objectives: The course faces theories and techniques for the design of interactive systems and multimodal systems.			
Contents: Main topics include the following:			
<ol style="list-style-type: none"> 1. Interactive real-time systems for audio-visual processing (incl. Exercises with the EyesWeb open software platform). 2. Devices for human-machine interaction. 3. Theories and techniques for GUI design. User-centered design. 4. Sketches. Storyboarding. 5. Predictive models: GOMS, keystroke modelling, Fitts's Law and its variants. 6. Evaluation of GUIs based on experimental psychology methods. 7. Psychophysical methods. 8. Examples: evaluation of input devices. 9. Visual and auditory displays. 10. Multimodal interaction. 11. Emotional interfaces, models of expressiveness and models of communication of non-verbal content. 12. Information appliances. Invisible/Disappearing Computing. Tangible Bits. Ambient Intelligence. 			
Abilities: After completing this course the students will be able to design advanced multimodal systems for Human-Machine interface.			
Assessment: 30% continuous assessment, 70% from end of semester examination			
Recommended texts:			
<ul style="list-style-type: none"> - Preece, Rogers, and Sharp, <i>Interaction Design</i>, Wiley, 2002, - Schneiderman, <i>Designing the User Interface</i>, Addison Wesley, 3rd ed, 1998. - J. Raskin, <i>The Humane Interface</i>, ACM Press, 2000. - Cook, Music, Cognition and the Computerized Sound, MIT Press, 2001. 			
Further readings: will be provided during the course			