Fakultät für Informatik
Facoltà di Scienze e Tecnologie informatiche
Faculty of Computer Science

SYLLABUS
COURSE DESCRIPTION

COURSE TITLE	**Human Centered GUI Design**
COURSE CODE	76229
SCIENTIFIC SECTOR	INF/01
DEGREE	Bachelor's in Computer Science
SEMESTER	1st
YEAR	3rd
CREDITS	6

TOTAL LECTURING HOURS	40
TOTAL LAB HOURS	20
PREREQUISITES	-
COURSE PAGE	https://ole.unibz.it/

SPECIFIC EDUCATIONAL OBJECTIVES	- Type of course: caratterizzanti - Scientific area: discipline informatiche

LECTURER	Eleonora Mencarini
SCIENTIFIC SECTOR OF THE LECTURER	
TEACHING LANGUAGE	English
OFFICE HOURS	Tuesday from 09:00 to 10:00. Please, set first an appointment by email. office POS 1.04, first floor, Faculty of Computer Science, piazza Domenicani 3
TEACHING ASSISTANT	Tonolli Linda
OFFICE HOURS	Wednesday from 13:00 to 14:00. Please, set first an appointment by email. office POS 1.04, first floor, Faculty of Computer Science, piazza Domenicani 3

LIST OF TOPICS COVERED	- Introduction to the history of Human Computer Interaction (HCI) - Psychology of interaction: essentials, with a focus on memory, visual perception and attention - Design approaches and methods: formal, informal - Web interface design principles - Web interface design patterns - Introduction to evaluation: ethical concerns, expert-based evaluation and user-based evaluation
TEACHING FORMAT	Lectures and laboratories

LEARNING OUTCOMES	Knowledge and understanding: - Gain a solid knowledge of the theoretical foundations of computer science - Develop a deep knowledge of key principles, techniques and methodology for software design, development and maintenance Applying knowledge and understanding: - Ability to apply knowledge to the analysis, design, development and evaluation of hardware and software systems which satisfy set requirements - Ability to select and use innovative technologies and apply sound methodologies to the application context and problem Making judgments: - Ability to collect and interpret useful data for autonomous judgement of information systems and their usage; - Ability to engage in reflection on ethical and socioeconomic issues connected to information system Communication skills: - Ability to structure and write technical documentation - Ability to work in group for designing computing systems Learning skills: - Acquiring abilities necessary for autonomous study - Acquiring abilities necessary to develop projects in companies, institutions or development communities, including distributed ones.

ASSESSMENT	Written exam and project work: - written project report done in groups - written exam to verify theory
ASSESSMENT LANGUAGE	English
EVALUATION CRITERIA AND	**Criteria for awarding marks** Final mark = average of groupwork mark and individual written exam mark.

CRITERIA FOR AWARDING MARKS	
	Evaluation criteria for attending students

Evaluation criteria for attending students

Attending students will be evaluated on the basis of an individual written exam on the principles and processes addressed during the course, and of a group project report.

The group report will present a description of the activities carried out to complete the project in relation to the theoretical concepts presented during the module. The project will be organized around the 4 phases of Interaction Design: Analysis, Design, Prototyping and Evaluation. The report must be 10 pages long and must include the following sections:

- Introduction: description of the design problem considered and explanation of its criticalities;
- Benchmarking: analysis of the existing products addressing the same design problem;
- Data collection & analysis: description of the procedure followed for gathering data about users' needs, of the analysis and findings, and of the user requirements
- Design: Personas, Concepts, Scenarios
- Low Fidelity Prototype: justification of the main design choices and flowchart presentation
- First Evaluation: procedure and results
- Medium Fidelity Prototype: justification of main design choices in relation to the design principles addressed during the lessons and link to the interactive prototype
- Second Evaluation (procedure and results)
- Conclusion: critical reflection on the project, including what the students have learned, what aspects they would have improved if the project could be redone from scratch, how the project could be carried on.

All documentation related to the project elaboration (e.g. interviews, questionnaires, previous versions of the prototype, etc.) must be stored in an online repository that has to be accessible to the examiner.

The criteria for the assessment of the group project and report are:
1. Conceptual quality of the content, including the level of the critical reflection in relation to the topics presented during the lessons
2. Clarity of the explanation of the design choices
3. Originality, creativity, and innovation of the proposed solution
4. Complexity and coherence of the interactive prototype in relation to the theoretical aspects presented during the lessons
5. Clarity of the text, in terms of content, layout (including figures, tables), ability to summarize in own words.

In the case of non-sufficient score or if the score is refused, then at the next examination round the students will have to rewrite the report individually, improving the previous version with the indications provided in the examiner's assessment.

Evaluation criteria for non-attending students

	Non-attending students will have to take a written exam and to conduct the project individually. The evaluation criteria for their project are the same used for the attending students. The final mark is the average between the written exam mark and the project report mark.

REQUIRED READINGS	1. Sharp H., Rogers Y., Preece H. (2019, 5th edition). *Interaction Design Beyond Human-Computer Interaction*. Chichester: John Wiley & Sons. The University library provides online access of the 5th edition of the book; the 4th edition is accessible in paper copy, barcode: 05399949, shelf mark: ST 278 P923 (4). 2. Johnson, J. (2013). *Designing with the mind in mind: simple guide to understanding user interface design guidelines*. Elsevier. The University library holds a copy: barcode: 03572306, Shelf mark: ST 280 J66.
SUPPLEMENTARY READINGS	Recommended reading will be assigned weekly during classes.
SOFTWARE USED	A range of free software to carry out the course project will be presented during classes.