UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Human Computer Interaction

2021-3-E3101Q120

Aims

At the end of the course, students will have acquired the ability to design and critically evaluate the user interface and the interaction modes offered by an interactive computer system, to design and prototype high quality interfaces, and to evaluate their usability through user-centered testing techniques and metholdologies.

Contents

The human-machine interaction and the human-human interaction mediated by machines, the user experience, the usability and the engagement are presented as new dimensions of the engineering of interactive computer systems, and taken as reference to become precise high-level objectives for the learning and application of design, development, evaluation and evolution techniques of such interactive systems. The course presents the "user-centered" and "socio-technical" approach to the project, design and development of interactive systems that are then adapted in human and social contexts (community of people), with particular emphasis on the collection and analysis of requisites, prototyping and impact assessment.

Detailed program

1 Introduction and historical framing of the discipline.

2 The human user.

3 The machine and the Interaction modes.

4 Usability and Accessibility.

5 Usability engineering. Evaluation of interactive systems.

6 User-centered design. Requirement elicitation and analysis.

7 Design and development of the project work

Prerequisites

None

Teaching form

Frontal instruction lessons, held in Italian, hands-on labs (also on rapid prototyping tools such as POP, Marvel, and Figma), in-depth seminars, project review meetings.

In case of COVID-19-related emergency, the frontal and laboratory lessons will be mainly synchronous via Google Meet or equivalent platform as indicated in the course Web site.

Textbook and teaching resource

Slideware by the teacher (mostly in Italian, occasionally in English).

Semester

Second Semester (March - June)

Assessment method

No mid-term assessment. The final grade is the average of two assessments: one for a written examination, to be held online, at the lab (or remotely if imposed by emergency measures), which mainly encompasses closed-ended questions and a couple of open-ended question (mostly on the material presented in class, but some could also require some logic inference); the second one regards a project work to make in team (with clear responsibilities for each section) in which the students are supposed to apply the methods and techniques shown in class to compare two or more systems' usability. A final oral examination, which is a group discussion of the project with questions addressed to individual members of the group, will close the assessment. Extra activities are assigned to students, who voluntarily want to get additional points that increase the grade of the writing examination (before actually performing it). It is necessary to read a book among those proposed by the teacher (available extra points).

Office hours

By appointment, and at the end of each lecture.