

## COURSE DESCRIPTION – ACADEMIC YEAR 2023/2024

<b>Course title</b>	<b>Human-Computer Interaction</b>
<b>Course code</b>	73095
<b>Scientific sector</b>	INF/01
<b>Degree</b>	Master Software Engineering (LM-18)
<b>Semester</b>	2
<b>Year</b>	1
<b>Credits</b>	6
<b>Modular</b>	No
<b>Total lecturing hours</b>	40
<b>Total lab hours</b>	20
<b>Attendance</b>	<p>Attendance is compulsory for students wanting to engage in the course work-based assessment.</p> <p>Non-attending students have to contact the lecturer at the start of the course to agree on the modalities of the independent study.</p>
<b>Prerequisites</b>	
<b>Course page</b>	<a href="https://ole.unibz.it/">https://ole.unibz.it/</a>
<b>Specific educational objectives</b>	<p>The course belongs to the type “caratterizzanti – discipline informatiche”.</p> <p>The course is designed to give attending students first-hand experience of an interaction design project following the three basic steps of requirements elicitation, design and evaluation. Students will be provided with a general overview to research in Human-Computer Interaction, User-Centered Design and Social Innovation. In parallel, they will work on an interaction design project, from ideation to mid fidelity prototype. After successful attendance, the students are expected to acquire substantial professional skills and knowledge.</p> <p>Non attending students will cover the same scientific content and will be given a set of structured exercises to support the individual elaboration of professional skills.</p>
<b>Lecturer</b>	<a href="#">Antonella De Angeli</a>
<b>Contact</b>	POS 3.09, <a href="mailto:antonella.deangeli@unibz.it">antonella.deangeli@unibz.it</a> , +39 0471 016041
<b>Scientific sector of lecturer</b>	INF/01
<b>Teaching language</b>	English
<b>Office hours</b>	Upon e-mail appointment
<b>Lecturing Assistant (if any)</b>	--
<b>Contact LA</b>	--
<b>Office hours LA</b>	--
<b>List of topics</b>	<ul style="list-style-type: none"> <li>● PACT framework: People Activities Context Technology</li> <li>● Design principles</li> <li>● Quality metrics: usability, user experience, engagement</li> <li>● Cognitive processes: attention, perception and memory</li> <li>● Evaluation and empirical research</li> <li>● Data analysis and visualisation: statistical considerations</li> </ul>

<b>Teaching format</b>	Service Learning with a mix of frontal lectures, hands-on activities, invited presentations, students' active engagement.
<b>Learning outcomes</b>	<p><b>Knowledge and understanding</b></p> <ul style="list-style-type: none"> <li>• D1.1 - possess solid knowledge of both the fundamentals and the application aspects of the various fundamental areas of computer science;</li> </ul> <p><b>Making judgments</b></p> <ul style="list-style-type: none"> <li>• D3.1 - ability to independently select documentation from various sources, including technical books, digital libraries, technical scientific journals, web portals or open source software and hardware tools;</li> </ul> <p><b>Communication skills</b></p> <ul style="list-style-type: none"> <li>• D4.1 - ability to present the contents of a scientific/technical report in a set time in front of an audience, including non-specialists;</li> <li>• D4.2 - ability to structure and draft scientific and technical descriptive documentation of project activities;</li> <li>• D4.3 - ability to co-ordinate the work of a project team and to identify activities aimed at achieving the project objectives;</li> <li>• D4.5 - ability to interact and collaborate in the realisation of a project or research with peers and experts;</li> </ul> <p><b>Learning skills</b></p> <ul style="list-style-type: none"> <li>• D5.1 - ability to independently extend the knowledge acquired during the course of study by reading and understanding scientific and technical documentation in English</li> </ul>
<b>Assessment</b>	<p>The course is heavily project based and attendance is strongly recommended. Non-attending students will not be engaged in the practical project and alternative assessment methods will be provided.</p> <p>Assessment for Attending students</p> <ul style="list-style-type: none"> <li>• <b>Group project work</b></li> <li>• Low fidelity prototyping in the form of personas and scenarios due Beginning of November. The groups will present their own solution in the class and participate to a design critique (20%)</li> <li>• Written project report done in groups (Max 10 page) to be delivered two weeks before the students sit the oral exam (40%).</li> <li>• Individual oral examination with presentation of the final prototype to evaluate the results of the project, test knowledge acquisition, and verify individual contribution to the group work (40%).</li> </ul> <p>Assessment for Non attending students</p> <ul style="list-style-type: none"> <li>• <b>Individual examination</b></li> </ul>

	<ul style="list-style-type: none"> <li>• Course-work: the students will be given a design topic and required to develop a user-centred methodology for it, engage in conceptual design, low to mid-fidelity prototyping (50%)</li> <li>• Oral exam with evaluation of the written exam files, to test knowledge acquisition, and verify individual contribution to the group work (50%).</li> </ul>
<b>Assessment language</b>	English
<b>Assessment Typology</b>	Monocratic
<b>Evaluation criteria and criteria for awarding marks</b>	<p>Final mark for attending students:            Low fidelity prototype (20%) + Project report (40%) + Individual oral exam (40%).            All parts must be sufficient to sit the oral exam</p> <p>Evaluation Criteria for attending students:</p> <ul style="list-style-type: none"> <li>• Low fidelity Prototype and Project report: ability to work in a team, creativity, skills in critical thinking, ability to summarize in own words, methodological rigor.</li> <li>• relevant for assessment 3: clarity of answers, mastery of language (also with respect to teaching language), ability to summarize, evaluate, and establish relationships between topics;</li> </ul> <p>Final mark for non-attending students:            Written examination (50%) + Oral examination (50%)</p> <p>Evaluation Criteria for non-attending students:</p> <ul style="list-style-type: none"> <li>• Written exam: methodological rigor, creativity, skills in critical thinking, ability to summarize in own words, clarity of answers, mastery of language (also with respect to teaching language), ability to summarize, evaluate, and establish relationships between topics;</li> <li>• Oral Exam: clarity of answers, mastery of language (also with respect to teaching language), ability to summarize, evaluate, and establish relationships between topics.</li> </ul>
<b>Required readings</b>	<p>Sharp, H., Rogers, Y., &amp; Preece, J. (2019). Interaction Design: Beyond human-computer interaction. New York: John Wiley &amp; Sons, Inc. . 5th Edition.</p> <p>Subject Librarian: David Gebhardi, David.Gebhardi@unibz.it</p>
<b>Supplementary readings</b>	Selected papers will be suggested after each lecture.
<b>Software used</b>	--