

COURSE DESCRIPTION – ACADEMIC YEAR 2015/2016

Course title	Seminars in Human Machine Interaction
Course code	72021
Scientific sector	M-PSI/01
Degree	Master in Computer Science (LM-18)
Semester	1
Year	1
Credits	4
Modular	No

Total lecturing hours	20
Total lab hours	16
Total exercise hours	--
Attendance	Highly recommended, as books alone may be not sufficient; attendance to labs is mandatory, because labs require group work and rapid assessment feedback on "how" to carry on exercises by the teacher.
Prerequisites	Basic maths; working knowledge of descriptive statistics
Course page	http://www.inf.unibz.it/~gennari/shmi.html

Specific educational objectives	<p>The course belongs to the type "affini o integrative – formazione affine".</p> <p>The course gives general overview knowledge and skills necessary for designing and evaluating interactive information systems, centered on their users. In particular:</p> <ul style="list-style-type: none"> • Context of use analysis: models of user behaviour; task analysis • Interface and interaction design • Interface and interaction evaluation: usability goals and analysis; user experience goals and analysis <p>The course is organised into 4 main blocks:</p> <ul style="list-style-type: none"> • (20% of the course) Context of use analysis and specifications: data gathering methods and specification formats, including context of use scenarios and models of user behaviour, primarily, personas and task analysis, primarily hierarchical • (35% of the course) Design specification principles and patterns, focussing on web design patterns; design specification formats, including key-path scenarios from context scenarios, and wireframes for prototyping web interfaces • (40%) Usability/user experience evaluation and analysis of interactive products with: inspection methods, heuristics; methods for small-scale empirical studies • (5% of the course) HMI lifecycles
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Lecturer	Rosella Gennari
Contact	Piazza Domenicani 3 , Room 2.01, gennari@inf.unibz.it , 0471-016964
Scientific sector of lecturer	INF/01
Teaching language	English
Office hours	By appointment via mail; preferably after the course lecture or labs.
Lecturing Assistant (if any)	--
Contact LA	--
Office hours LA	--

List of topics	<ul style="list-style-type: none"> Models of user behaviour Task analysis Interaction design Interface evaluation Usability analysis
Teaching format	Frontal lectures, labs with exercises.
Learning outcomes	<p>Knowledge and understanding:</p> <ul style="list-style-type: none"> Know the main methods for the design of user-centred systems. <p>Applying knowledge and understanding:</p> <ul style="list-style-type: none"> Be able to assess the usability of a web and mobile information system with quantitative and heuristic methods. Be able to design and execute experimental analyses on information systems or their components. <p>Making judgments</p> <ul style="list-style-type: none"> Be able to plan and re-plan a technical project activity aimed at building an information system and to bring it to completion by meeting the defined deadlines and objectives. <p>Communication skills</p> <ul style="list-style-type: none"> Be able to coordinate the work of a project team and to interact positively with members of the group. Be able to interact and collaborate with peers and experts in the realization of a project or research. <p>Learning skills</p> <ul style="list-style-type: none"> Be able to autonomously extend the knowledge acquired during the study course by reading and understanding scientific and technical documentation in Italian, German and English. Be able, in the context of a problem-solving activity, to extend even incomplete knowledge taking into account the objective of the project.
Assessment	<ul style="list-style-type: none"> Mandatory written exam with review and exercise questions Optional written report for lab projects, done in groups. <p>In case of a positive mark, the project report will count for all 3 regular exam sessions.</p>
Assessment language	English
Evaluation criteria and criteria for awarding marks	<p>The final exam is written. It has: verification questions, based on the course lectures; transfer of knowledge questions and exercises, mainly based on the lab tasks. The exam allows students to cumulate at most 12 points, and students must cumulate at least 9 points to pass it (75%).</p> <p>During labs, groups of students will have tasks to tackle, collected into 6 sets; the course teacher will be present and assist groups with rapid formative feedback.</p> <p>Students, who are present at labs, have circa two weeks for handing in their solutions to a set of tasks. Solutions to a set are worth a bonus</p>

	<p>of 0, 0.5 or 1 point for the final exam. Presence in labs is necessary (but not sufficient) for earning the bonus.</p> <p>Tasks consist of transfer-of-knowledge questions, exercises; some tasks require students to elaborate solutions to real-life problems.</p> <p>A detailed explanation concerning lab tasks and deadlines will be given in the course introductory lecture, discussed with students and then recorded as-is in the companion introductory slides.</p>
Required readings	<ul style="list-style-type: none"> • Designing for the Digital Age, Goodwin, A. • Measuring the User Experience, Tullis, T. and Albert, B.
Supplementary readings	<p>Suggested readings for complementing the book material, as used in teacher slides, are regularly posted at http://www.inf.unibz.it/~gennari/shmi.html.</p>
Software used	--