COURSE DESCRIPTION – ACADEMIC YEAR 2017/2018

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 for earning bonus points.
Prerequisites	Basic maths; working knowledge of descriptive statistics
Course page	https://ole.unibz.it/

Specific educational objectives	The course belongs to the type "affini o integrative – formazione affine". The course gives general overview knowledge and skills necessary for designing and evaluating interactive information systems, centered on their users. In particular: • 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 The course is organised into 4 main blocks: • (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 and mobile 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

Lecturer	Rosella Gennari
Contact	Piazza Domenicani 3, Room 1.12, gennari@inf.unibz.it, 0471-016964
Scientific sector of lecturer	INF/01
Teaching language	English
Office hours	By prior appointment via mail; preferably after the course lecture or lab.
Lecturing Assistant (if any)	--
Contact LA	--
Office hours LA	--

List of topics	• Models of user behaviour • Task analysis • Interaction design • Interface evaluation Usability analysis
Teaching format	Frontal lectures; labs with assignments.

Learning outcomes	Knowledge and understanding: • Know the main methods for the design of user-centred systems. Applying knowledge and understanding: • 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. Making judgments • 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. Communication skills • 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. Learning skills • 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	• Mandatory written exam with verification/transfer-of-knowledge questions and exercises. • Optional lab assignments, available to those present only. The lab resolutions will count for all 3 regular exam sessions.
Assessment language	English
Evaluation criteria and criteria for awarding marks	The **exam** is **written**, with questions and exercises. Questions and exercises come with points. During labs, participating students work on **lab assignments**. Correct resolutions, **delivered in time**, are worth bonus points for the exam. **Presence in labs is mandatory** (but not sufficient) **for earning bonus points** for the exam: **absent students will not receive bonus points**. A detailed explanation concerning the exam and labs will be given in the introductory lecture, and then recorded as-is in the companion introductory slides.

Required readings	• INTERACTION DESIGN: beyond human-computer interaction, 3rd Edition, Rogers, Y., Sharp, E., Preece, J. • Measuring the User Experience, Tullis, T. and Albert, B. • Quantifying the User Experience, Sauro, J. and Lewis J.R.
Supplementary readings	Suggested readings for complementing the book material, as used in teacher slides, are regularly posted at http://www.inf.unibz.it/~gennari/shmi.html.
Software used	JustInMind, student license; Excel, R or SPSS