Syllabus

Course Description

Course Title	Interactive Interface Design and Development
Course Code	76260
Course Title Additional	
Scientific-Disciplinary Sector	INFO-01/A
Language	Italian
Degree Course	Bachelor in Computer Science
Other Degree Courses (Loaned)	
Lecturers	Prof. Rosella Gennari, Rosella.Gennari@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/8607
Teaching Assistant	
Semester	Second semester
Course Year/s	3
CP	6
Teaching Hours	30
Lab Hours	30
Individual Study Hours	90
Planned Office Hours	
Contents Summary	– Fundamentals of interaction design – Fundamental of interaction design principles for web apps – Fundamental of interaction design patterns for web apps – Interaction design prototyping techniques for web apps – Interaction design prototyping tools for web apps – Fundamentals of programming, client-side, for web apps
Course Topics	This course teaches students how to design and develop the interaction of a web application by placing users and their requirements at the center of the design and development process. It begins with a brief overview of user requirements and how to

	specify them, for example through the use of scenarios. The course then introduces fundamental web design principles and patterns, including aspects such as navigation, color, and visual hierarchy. Through assignments, students learn how to prototype a web application interface by considering user requirements, design principles, and established patterns, possibly using IoT physical-computing devices. Design techniques covered include wireframing and the creation of sitemaps.
Keywords	Human-centred Design, Principles and Patterns, Prototyping, Methods, Techniques
Recommended Prerequisites	The necessary prerequisite for this course is Web and Internet Engineering, as it provides the essential knowledge of HTML and CSS required to follow the course. For students interested in deepening HCI topics it also suggested to attend the "HCI for Business" course from the Business Informatics study program, as it covers topics related to the user-centred context-of-use analysis and conceptual modeling, which are relevant for this course.
Propaedeutic Courses	
Teaching Format	This course will be delivered through a combination of formal lectures and project-work.
Mandatory Attendance	Attendance is not compulsory but highly recommended. Non-attending students must contact the lecturer at the start of the course to agree on the modalities of the independent study.
Specific Educational Objectives and Learning Outcomes	Knowledge and Understanding – D1.17 Know the main methods for the design of interactive smart objects for IoT Applying knowledge and understanding – D2.14 Be able to develop Mobile applications. – D2.16 Ability to develop applications in the web area. – D2.19 Be able to apply the own knowledge in different working contexts. – D2.23 Be able to coordinate small project teams and to

	interact with members of the group. – D2.25 Be able to apply interactive design principles and patterns for IoT solutions and smart objects. Ability to make judgments – D3.2 Be able to work autonomously according to the own level of knowledge and understanding. Communication skills – D4.1 Be able to use one of the three languages English, Italian and German, and be able to use technical terms and communication appropriately. – D4.5 Be able to work in teams for the realization of IT systems. Learning skills – D5.2 Have acquired learning capabilities that enable to carry out project activities in companies, public institutions or in distributed development communities.
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	The assessment is divided into two parts, A1 and A2. A1 is related to the design of an interactive interface: it assesses knowledge and understanding, besides the application of user-centred design principles, methods and techniques. A2 is related to assignments of the course for the prototyping of an interactive interface: it asks to apply knowledge, make judgements, communicate findings, and learn independently. For students attending >70% of the course hours with a positive attitude, and tackling assignments, A1 consists of a closed-book written test, and A2 of a mash-up project. For all other students, A1 and A2 consist of two closed-book written tests. Specific information is delivered at the start of the course. A mock-up of exam is delivered at the end of the course.
Evaluation Criteria	The final grade will be based on the outcomes of A1 (50% of the mark) and A2 (50% of the mark). All grades reflect both the correctness, completeness and the clarity of resolutions. Attending

	and non-attending students are evaluated on the same course materials.
Required Readings	Published on the course Teams channel.
Supplementary Readings	Published on the course Teams channel.
Further Information	
Sustainable Development Goals (SDGs)	Quality education