Fakultät für Informatik
Facoltà di Scienze e Tecnologie informatiche
Faculty of Computer Science

SYLLABUS
COURSE DESCRIPTION

COURSE TITLE	**Web and Internet Engineering**
COURSE CODE	76216
SCIENTIFIC SECTOR	INF/01
DEGREE	Bachelor in Computer Science
SEMESTER	2nd
YEAR	2nd
CREDITS	6

TOTAL LECTURING HOURS	40
TOTAL LAB HOURS	20
PREREQUISITES	Good knowledge of Java programming language, including principles of distributed computing, and of database management systems.
COURSE PAGE	https://ole.unibz.it/

SPECIFIC EDUCATIONAL OBJECTIVES	Type of course: "caratterizzanti" Scientific area: "discipline informatiche" This course deals with the design and development of Internet and mobile systems providing practical knowledge required for designing and building applications. There will be illustrated principles for the design and the development of different kinds of applications.

LECTURER	Markus Zanker
SCIENTIFIC SECTOR OF THE LECTURER	INF/01
TEACHING LANGUAGE	English
OFFICE HOURS	To be announced in the first lecture, office POS 2.20, Faculty of CS, POS Building, piazza Domenicani 3, mzanker@unibz.it, +39 0471 016977
TEACHING ASSISTANT	Francesco Barile, Riccardo Billero
OFFICE HOURS	TBA

LIST OF TOPICS COVERED	• Development of web applications: basics of usability accessibility and responsive design • Web protocols and markup languages • Client-side dynamicity and web scripting languages • Client-side GUI frameworks • Web application design and web services • Languages and frameworks for server-side web development
TEACHING FORMAT	• Lectures • Small exercises and regular assignments • Work in teams

LEARNING OUTCOMES	**Knowledge and understanding** • know in detail the foundations of the World Wide Web as well as principles of web applications; • know in detail the methods to design and develop web applications; **Applying knowledge and understanding** • be able to develop Web applications; • be able to select and apply innovative technologies and methods that are appropriate for a given context and problem; **Ability to make judgments** • be able to take the responsibility for software development projects; • be able to work autonomously according to the own level of knowledge; **Communication skills** • ability to explain a project activity or a scientific study, also to non-experts; • ability to work in teams to implement software systems; **Ability to learn** • ability to learn cutting edge IT technologies and their strengths and limitations; • ability to follow and be up-to-date with the most important IT developments.

ASSESSMENT	Written exam, assignments and a project. The written exam assesses the acquisition and the understanding of the theoretical knowledge presented during lectures. The assignments aim at ensuring a continuous interaction with the course content. The project activity aims at assessing how students approach the development of a web application and how they interact with each other to achieve a common goal.
ASSESSMENT LANGUAGE	English
EVALUATION CRITERIA AND CRITERIA FOR AWARDING MARKS	Written exam [50%], assignments [25%] and a project [25%]. The assignments aim at ensuring a continuous interaction with the course content and will be assessed according to correctness and completeness. The project activity aims at assessing how students approach the development of a web application and how they interact with each other to

achieve a common goal. The written exam assesses the acquisition and the understanding of the theoretical knowledge presented during lectures.

Assignments need to be submitted during the course of the semester. The project can be presented before the written exam of the first exam session or during one of the following 2 regular exam sessions.

The project and the assignments are valid for the 3 regular exam sessions of the academic year.

More details will be given during the lectures.

REQUIRED READINGS	Lecture notes at the course page
SUPPLEMENTARY READINGS	Links to mainly online resources will be provided in the OLE course.
SOFTWARE USED	- HTML5 and CSS - JavaScript, PHP and Java - Tomcat, Apache and NGINX