Fakultät für Ingenieurwesen
Facoltà di Ingegneria
Faculty of Engineering

SYLLABUS
COURSE DESCRIPTION – ACADEMIC YEAR 2025/2026

Course title	**Web and Internet Engineering with Project**
Course code	76447
Scientific sector	INF/01
Degree	Bachelor Informatics and Management (L-31)
Semester	2
Year	1
Credits	6
Modular	No

Total lecturing hours	30
Total lab hours	20
Attendance	Not compulsory, but recommended
Prerequisites	Knowledge of at least one programming language
Course page	The course page will be made available on the Microsoft Teams class for this course or on https://ole.unibz.it, as communicated by the lecturer. Additional materials can also be found in the university's Reserve Collection at https://www.unibz.it/en/services/library/new-rc/.

Specific educational objectives	The course belongs to the type "attività formative caratterizzanti – discipline informatiche". It deals with the design and development of web-based applications providing practical knowledge and skills required for designing and building them. The principles for the design and development of the client-side and server-side parts of an application will be illustrated.

Lecturer	Markus Zanker
Contact	Office B1.3.23, Faculty of Engineering, NOI Techpark, Via Bruno Buozzi 1, markus.zanker@unibz.it, +39 0471 016977
Scientific sector of lecturer	INFO-01/A
Teaching language	German
Office hours	To be announced in OLE, prior appointment by email, Faculty of Engineering.
Lecturing Assistant (if any)	Hannes Tribus
Contact LA	Office BZ B1.3.23, Wednesdays 14:00–16:00, by prior appointment via email,
Office hours LA	To be announced in OLE, prior appointment by email, hannes.tribus@unibz.it
List of topics	• Basics of computer networks, web protocols and markup languages • Development of web applications: basics of usability, accessibility and responsive design • 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: • D1.3 - Know the basic principles of programming. • D1.8 - Know the basics of designing and building web applications. Applying knowledge and understanding: • D2.2 - Ability to solve algorithmic problems using programming methods. • D2.8 - Ability to develop applications in the web area. • D2.17 - Know how to manage small projects for the development of information systems and how coordinate small working groups. Communication skills • D4.4 - Ability to structure and prepare technical documentation • D4.5 - Ability to collaborate in interdisciplinary teams to achieve IT objectives. Learning skills • D5.3 - Ability to follow rapid technological developments and to learn about innovative aspects of the latest generation of information technology and systems.

Assessment	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-based application and how they interact with each other in order to achieve a common goal. The written exam assesses the acquisition and the understanding of the theoretical knowledge presented during lectures.
Assessment language	German
Assessment Typology	Monocratic
Evaluation criteria and criteria for awarding marks	Written exam [50%], assignments [25%] and a project [25%]. The project and the assignments are valid for the 3 regular exam sessions within the same academic year. 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. Further details will be provided during the lectures and on the course web page.

Required readings	Lecture materials at the course page.

Supplementary readings	Links to mainly online resources will be provided in the course web page.
Software used	• HTML5 (https://www.w3schools.com/html/) • CSS (https://www.w3schools.com/css/) • Bootstrap (https://getbootstrap.com/) • JavaScript (https://www.w3schools.com/js/) • Node (https://nodejs.org) • Apache HTTP Server (https://httpd.apache.org) • nginx (https://nginx.org)