Syllabus

Descrizione corso

Titolo insegnamento	Web and Internet Engineering with Project
Codice insegnamento	76216
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	INFO-01/A
Lingua	Tedesco
Corso di Studio	Corso di laurea in Informatica
Altri Corsi di Studio (mutuati)	
Docenti	prof. dr. Markus Zanker, Markus.Zanker@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/3466
Assistente	
Semestre	Secondo semestre
Anno/i di corso	1
CFU	6
Ore didattica frontale	30
Ore di laboratorio	20
Ore di studio individuale	100
Ore di ricevimento previste	
Sintesi contenuti	This course belongs to the type "Attività formative caratterizzanti" and the subject area is "Scientifico-Tecnologico". The course 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.
Argomenti	• Basics of computer networks, Web protocols and markup

dell'insegnamento	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
Parole chiave	Web protocols, client-side and server-side web application development
Prerequisiti	The course requires knowledge of at least one programming language.
Insegnamenti propedeutici	
Modalità di insegnamento	The course includes lectures, small exercises and regular assignments, and team-based work.
Obbligo di frequenza	Not compulsory, but recommended
Obiettivi formativi specifici e risultati di apprendimento attesi	Knowledge and Understanding - D1.9: Know the principles of computer networks - D1.13: Know the basics of designing and building of web applications - D1.21: Know of both the fundamentals and the application aspects of the various areas of Human-computer interaction Applying knowledge and understanding - D2.3: Be able to solve problems using programming methodologies. - D2.11: Be able to develop Web applications. - D2.18: Be able to apply interactive design principles and patterns fo smart objects and we applications. Ability to make judgments - D3.1: Be able to collect and interpret useful data and to judge information systems and their applicability. - 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. - D4.3: Be able to structure and write technical documentation. - D4.4: Be able to work in teams for the realization of IT systems. Learning skills - D5.1: Have developed learning capabilities to pursue further studies with a high degree of autonomy. - D5.3: Be able to follow the fast technological evolution and to learn cutting edge IT technologies and innovative aspects of last generation information systems.
Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	
Modalità di esame	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.
Criteri di valutazione	The final grade is composed of a written exam (50%), assignments (25%), and a project (25%). The project and assignments are valid for all three regular exam sessions within the same academic year. Assignments must be submitted during the semester, while the project can be presented either before the written exam in the first exam session or on an announced date before the second exam session. Further details will be provided during the lectures and on the course web page.
Bibliografia obbligatoria	Lecture materials are available on the course web page.
Bibliografia facoltativa	Links to primarily online resources will be provided on the course web page.
Altre informazioni	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)
Obiettivi di Sviluppo Sostenibile (SDGs)	Istruzione di qualità