Università degli Studi di L'Aquila - Dipartimento di Ingegneria e Scienze dell'Informazione e Matematica
Course catalogue

Programme of Course "Tecnologie del Web"

- Code: F0149
- Type of course unit: Compulsory (Bachelor Degree in Computer Science curriculum General)
- Level of course unit: Undergraduate Degrees
- Semester: 1

Number of ects credits: (Bachelor Degree in Computer Science) 6 (workload 150 hours)

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1	Course objectives	The main objectives is to provide the students with the insights of the Internet programming and how to design and implement complete realistic-scale distributed applications on the web. At the end of the course, the students will be familiar with design-methodologies necessary for managing the problem complexity, client-side programming, server-side programming, database connectivity. Moreover, they will be proficient in using the following languages, systems, and techniques: HTML/CSS, DOM, JavaScript, jQuery, PHP, MySQL, Templating, beContent, etc
2	Course content and learning outcomes (dublin descriptors)	Topics of the module include: • Introduction. Three-tier architecture. Graphics and Communication. • Client-side: HTML/CSS, DHTML, JavaScript/ECMAScript, DOM, jQuery. • Server-side: PHP, MySQL, templating and separation of concerns (presentation, business logics, presentation logics). • Sessions and their management. User management: authentication, authorization and permissions. • Modelling and designing web application with beContent. • Case study (eg. ecommerce, news portal) On successful completion of this module, the student should : • Understading the methodologies and the technologies necessary for the development of web applications. • Being able to apply the most recent techniques and technologies to the design and development of web applications including the client and server-side in order to achieve a higher degree of usability and trust. • To evaluate and detect the right technologies and the best interfaces to achieve the design goals. • Continue learning all the evolving technologies related to the development of web applications
3	Course prerequisites	The main prerequisites for this course are: the ability to program with an object oriented language (eg. Java or C++), how to design a database, entity/relationship diagrams, SQL language, finally a familiarity with the web ecosystem is important.
4	Teaching methodsand language	The course is organized around theoretical and practical lectures where the techniques will be first illustrated and then demonstrated. **Language**: Italian **Reference textbooks** • D Goodman, *Dynamic HTML The Definitive Guide*. O'Reilly. • D Sklar, *Learning PHP 5*. O'Reilly. • R Nixon, *Learning PHP, MySQL, JavaScript, and CSS: A Step-by-Step Guide to Creating Dynamic Websites*. O'Reilly. • S Ceri, P Fraternali et al, *Progettazione di Dati e Applicazioni per il Web*. McGraw-Hill. • H E Williams, D Lane, *Web Database Applications with PHP and MySQL*. O'Reilly.

5	Assessment methods	The exam consists in realizing a project, whose requirements will be distributed during the course and is available in these pages. In some cases, it will be necessary to sustain a written or oral exam.