Study Program: Informatics	
Type and level of studies: Bachelor studies	
Course name: Web Development	
Lecturer: Savić S. Milan	
Status: Elective	
ECTS: 10	
Attendance Prerequisites: /	

Course aims

The students have gained knowledge and practical skills in WEB development necessary for the construction of multi-tier WEB apps.

Course outcome

The students are able to implement a multi-layered Web application that integrates data from the database and generates a view of the data to multiple users.

Course content

Theoretical part

Web as a multimedia Internet service, HTTP protocol and HTML. Elements of HTML language. CSS-Defining and Using Styles. Client Programming (Elements of JavaScript Language). Interactive Web Applications. Server programming. (CGI, ASP, PHP). Multitier Web Applications. Basic Java technologies for Web programming. Elements of XML and its implementation. XML mapping to HTML Web Services. AJAX Technology and Web 2.0. Working with unstructured data. Formal description and processing of XML documents (DTD, XML Schema, DOM XML, SAX, XSLT). XML and RDF specifications. Web services and SOA applications. Rest services. Web service co-creation and orchestration. Scalability, reliability and security of Web applications. Web personalization. Web 2.0 technology. The Internet as a platform. Web and mobile applications. Web Management.

Practical part

Exercises, other forms of teaching. HTML Elements, CSS. JavaScript, Syntax and Language Elements, Object Concept. DOM (Document Object Model). Server Programming, PHP Server Programming, Accepting and Reformatting Display Data, Database Access, Data Sessions, Data Templates. Development of a multitier Web application.

Literature:
1. Jon Duckett, Beginning Web Programming with HTML, XHTML, and CSS, John Wiley & Sons, Aug 6, 2004
2. Rasmus Lerdorf, Kevin Tatroe, Bob Kaehms, Ric McGredy, Programming PHP, O Reilly, 2002
3. Elliotte Rusty Harold, W. Scott Means, XML in a Nutshell, 2nd Edition, O'Reilly, 2002.

Number of active classes				Other classes
Lectures: 4	Practical classes: 4	Other forms of teaching:	Students' research work	

Teaching methods

Lectures, solving problems with and without computers. Laboratory practice and term tests.

Assessment (maximum 100 points)			
Course assignments	**points**	Final exam	**Points**
activity during lectures	**10**	written exam	**10**
practical classes	**10**	oral exam	**30**
term test(s)	**40**	....	
seminar(s)			
Total	**60**		**40**