

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electronics - Multimedia technologies		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Web technologies 2		
Lecturer (for lectures)		Nikolić V. Saša		
Lecturer/associate (for exercises)		Cvetković S. Stevica		
Lecturer/associate (for OFE)		Cvetković S. Stevica		
Number of ECTS	5	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives	The main course objective is to provide students with a fundamental understanding of design and development of client-server Web applications.			
Course outcomes	After successful completion of the course, students are expected to be able to design and develop a multi-layer web application which integrates database data, performs processing on server and generates interactive preview on client side.			
Course outline				
Theoretical teaching	Architecture of multi-layer Web applications. Interactive Web sites development with focus on principles of server-side programming. Standard data formats eg XML, JSON, etc. Scalability and high-performance web development principles. Content management systems as basis for development.			
Practical teaching (exercises, OFE, study and research)	Focus of practical lectures is on development of multi-layer web applications. Server side programming, database access layer, web sessions, data handling and visualization. Content management systems (CMS). Practical lectures include a final project to develop a complete web site.			
Textbooks/references				
1	Azat Mardan, „Practical Node.js: Building Real-World Scalable Web Apps“, Apress, 2014.			
2	Michel Anders, „Python 3 Web Development Beginner's Guide: Use Python to Create, Theme, and Deploy Unique Web Applications“, Packt Publishing, 2015.			
3	Interactive materials on web http://w3schools.com/			
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	1	1	0	0
Teaching methods	Lectures, exercises, laboratory exercises, homework, course project, consultations			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures	10	Written exam		
Exercises	20	Oral exam	30	
Colloquia				
Projects	40			