

Study Program: Informatics			
Type and level of studies: Bachelor studies			
Course name: Web applications development			
Lecturer: Panić R. Stefan			
Status: Compulsory			
ECTS: 8			
Attendance Prerequisites: /			
Course aims			
Adopting a methodical approach to developing WEB apps which integrate data from various sources and allow access to a large number of users through different clients, including mobile clients.			
Course outcome			
The students have acquired theoretical and practical knowledge which can be applied in projecting and realizing complex WEB applications with high-quality user interface.			
Course content			
<i>Theoretical part</i>			
Semantic markup. Advanced CSS. Responsive Web design basics. Rich Web interfaces with AJAX. Advanced Web app architecture. Domain driven projects. Project templates in business Web apps. MVC paradigm in Web development. Inversion controls. Serialization and data transfer, XML and JSON. Object related mapping. HTTP protocol. REST Web services. Scalability and high performance Web applications.			
<i>Practical part</i>			
Exercises, other forms of teaching. Responsive Web design implementation. JQuery basics. Selectors, event handling and DOM element manipulation. Optimizing server data traffics using JavaScript. JSON. Datadash attributes. MVC example in PHP Symphony2 IDE. IDE basics. IDE components. Client side data handling. Inverse control. Serialization of data. Templates. ORM tool – Doctrine. Implementing REST Web services.			
Literature			
<ol style="list-style-type: none"> 1. B. Porebski, K. Przystalski, L. Nowak: Building PHP Applications with Symfony, CakePHP, and Zend Framework, John Wiley and Sons, 2011 2. T. Felke-Morris: Web Development and Design Foundations with HTML5 (6th Edition), Addison-Wesley, 2012 3. R. Daigneau: Service Design Patterns: Fundamental Design Solutions for SOAP/WSDL and RESTfulWeb Services, Pearson Education Inc, 2012 			
Number of active classes		Lectures: 3	
Practical classes: 3			
Teaching methods			
Assessment (maximum 100 points)			
Course assignments	points	Final exam	points
activity during lectures	10	written exam	20
practical classes		oral exam	30
term test(s)	10	
seminar(s)	30		
Total	50		50