

<b>Study programme(s):</b> Information Technologies			
<b>Level:</b> Bachelor			
<b>Course title:</b> Web Programming			
<b>Lecturer:</b> Vladimir Kurbalija			
<b>Status:</b> Elective			
<b>ECTS:</b> 7			
<b>Requirements:</b> none			
<b>Learning objectives</b> Advanced concepts of web programming and the semantic web. Enabling students to apply the acquired knowledge practically, for developing non-trivial, dynamic web presentations and interactive web applications, first and foremost by using the fundamental web technologies (HTML, PHP), and then by using advanced, modern frameworks (Laravel, Symfony). Advanced concepts of content management systems (CMS).			
<b>Learning outcomes</b> <i>Minimum:</i> At the end of the course, a successful student is expected to be able to design and implement a simple web presentation, in which the content is presented dynamically. The usage of a back-end database system is mandatory.  <i>Desirable:</i> At the end of the course, a successful student is expected to be able to design and implement a complex web application, with a high level of interactivity common in modern, professional web applications.			
<b>Syllabus</b> <i>Theoretical instruction</i> Properties of the Web. The client-server architecture. An overview of HTML. Basic concepts of a server-side programming language (PHP). Syntax and semantics. Working with forms. The concept of a session. Establishing database connectivity. An overview of the most important content and document management systems.  <i>Practical instruction</i> Practice and understanding of the core principles using illustrative examples. Analysis and practical applications of the advanced concepts introduced in the new HTML5 specification. Practical implementations of web presentations and applications on a dedicated web server.			
<b>Literature</b> <i>Recomended</i> 1. Matt Zandstra, Sams Teach Yourself PHP in 24 Hours, Sams Publishing, 2002. 2. Bogdan Brinzarea, Cristian Darie, AJAX and PHP: Building Modern Web Applications 2nd Edition, Packt Publishing, 2010. 3. Matt Doyle, Beginning PHP 5.3, Wiley Publishing, Inc. 2010.			
<b>Weekly teaching load</b>			
Lectures: 2	Exercises: 1	Practical Exercises: 2	Student research: Other:
<b>Teaching methodology</b> Classical teaching methods using a video beam are applied during lectures. The core principles used in the development of web presentations and applications are explained. Classical teaching methods are also used during theoretical exercises to illustrate examples of web presentations and applications. During practical exercises, students work on projects individually, and their work is examined in detail and graded appropriately.			
<b>Grading method (maximal number of points 100)</b>			
<b>Pre-exam obligations</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
3 practical tasks	60 (20+20+20)	oral examination	40