Study programme(s): Information Technologies	

Level: Bachelor
Course title: Web Programming
Lecturer: Vladimir Kurbalija
Status: Elective
ECTS: 7
Requirements: none

Learning objectives

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).

Learning outcomes

Minimum: 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.

Desirable: 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.

Syllabus

Theoretical instruction

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.

Practical instruction

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.

Literature

Recomended

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.

Weekly teaching load				
Lectures: 2	Exercises: 1	Practical Exercises: 2	Student research:	Other:

Teaching methodology

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.

Grading method (maximal number of points 100)

Pre-exam oblications	points	Final exam	points
3 practical tasks	60 (20+20+20)	oral examination	40