

<b>Study programmes:</b> Bachelor studies - Mathematics			
<b>Course name:</b> RM07 - Web programming			
<b>Lecturers:</b> Filip Marić and other teachers from Department of Computer Science			
<b>Status:</b> Optional			
<b>ECTS:</b> 5			
<b>Attendance prerequisites:</b> RM01			
<b>Course aims:</b> The course aims at introducing students to fundamental concepts of computer networks, internet and World Wide Web (WWW), mastering basic web technologies and acquiring the knowledge needed for creating dynamic and interactive web presentations.			
<b>Course outcome:</b> After the course is finished, a student has mastered the basic techniques for dynamic and interactive web applications development.			
<b>Course content:</b> <ul style="list-style-type: none"> <li>- The fundamentals of computer networking and internet.</li> <li>- Internet services and protocols (HTTP, POP3, IMAP, SMTP, FTP).</li> <li>- A web page context description. Language HTML.</li> <li>- A web page style description. Language CSS.</li> <li>- Making a web page interactive. DOM, client-side scripting, introduction to JavaScript. Modern JavaScript libraries overview (e.g. JQuery).</li> <li>- Web servers.</li> <li>- Dynamic web applications. Server-side scripting. Introduction to PHP language.</li> <li>- Using databases in web environment. Introduction to RDMS MySQL. Accessing MySQL databases from PHP.</li> <li>- Asynchronous web-applications. AJAX.</li> <li>- Internet security basics. Search engine optimization (SEO).</li> </ul>			
<b>Literature:</b> <ol style="list-style-type: none"> <li>1. Filip Marić: Uvod u veb i internet tehnologije, e-skripta, Matematički fakultet, 2013.</li> <li>2. Josh Hill, James A. Brannan: Brilliant HTML5 &amp; CSS3. Prentice Hall, 2011.</li> <li>3. JavaScript: The Definitive Guide, 6th Edition. O'Reilly. 2011.</li> <li>4. Luke Welling, Laura Thomson: PHP and MySQL Web Development (5th Edition). Addison-Wesley, 2017. (a teacher may also choose other contemporary literature)</li> </ol>			
<b>Number of hours:</b> 4	<b>Lectures:</b> 2	<b>Tutorials:</b> 2	<b>Laboratory:</b> - <b>Research:</b> -
<b>Teaching and learning methods:</b> Frontal, Group, Individual, Exercises.			
<b>Assessment (maximal 100 points)</b>			
<b>Course assignments</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
Lectures	10	Written exam	-
Exercises / Tutorials	-	Oral exam	-
Colloquia	20	Written-oral exam	50
Essay / Project	20		