



Univerza v Mariboru

Fakulteta za naravoslovje
in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: Osnove spletnega programiranja
Course title: Fundamentals of Web Programming

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Enovit magistrski študijski program druge stopnje Predmetni učitelj		3	6
Five-year master's degree program Subject Teacher			

Vrsta predmeta / Course type

Obvezni/ Obligatory

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30	15		30		105	180/6

Nosilec predmeta / Lecturer:

Andrej Taranenko

Jeziki /

Languages:

Predavanja / Lectures:

slovenski

Slovenian

Vaje / Tutorial:

slovenski/Slovenian

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Jih ni.

Prerequisites:

None.

Vsebina:

- Osnove in funkcije interneta.
- Najpomembnejše internetne aplikacije: spletni strežniki, odjemalci in protokol HTTP, FTP in elektronska pošta.
- Življenjski cikel spletne strani.
- Razvoj spletnih strani: HTML, XHTML, XML, JavaScript, Ajax, PHP, MySQL.
- Razvoj spletne aplikacije.

Content (Syllabus outline):

- Fundamentals and functions of the Internet.
- Common Internet applications: servers, clients and protocols for web pages, FTP and e-mail.
- The lifecycle of a webpage.
- Development of web pages: HTML, XHTML, XML, JavaScript, Ajax, PHP, MySQL.
- Development of a web application.

Temeljni literatura in viri / Readings:

Deloma odvisni od izbranega programskega jezika (npr.):

- P. Bilke: Spoznajmo PHP in MySQL, Flamingo, 2002.
- H. M. Deitel, P. J. Deitel, T. R. Nieto: Internet and World Wide Web: how to program, Prentice Hall, 2000.
- C. D. Knuckles, D. Yuen, Web applications: concepts & real world design, Hoboken, J.Wiley & Sons, 2005.
- G. Schlossnagle, Advanced PHP programming, Sams, 2004.
- K. Topley, Java Web services in a nutshell, Sebastopol, O'Reilly, 2003.

Cilji in kompetence:

Spoznati najpogostejše storitve interneta, življenjski cikel spletne strani in orodja za razvoj spletnih aplikacij. Razviti spletno stran in/ali aplikacijo.

Objectives and competences:

To know the most common internet services, the lifecycle of a Web page and different development tools for Web applications. To develop a web page and/or a web application.

Predvideni študijski rezultati:

Znanje in razumevanje:

- Spoznati pristope k razvoju spletnih aplikacij in organizaciji spletne stran
- Spoznati različne protokole, strežnike in odjemalce za spletne strani, prenos datotek in elektronsko pošto.
- Razumeti osnovne konstrukte skriptnih jezikov
- Spoznati orodja za razvoj spletnih aplikacij.
- Razviti spletno aplikacijo.

Prenosljive/ključne spretnosti in drugi atributi:

- Pridobljena znanja so podlaga za vse predmete, ki lahko izkoristijo internet.

Intended learning outcomes:

Knowledge and Understanding:

- To know the approaches to Web design and organization of Website content
- To know the protocols, servers and clients for web pages, file transfer and e-mail
- To understand fundamental constructs of scripting languages
- To know the different development tools
- Development of a real world Web application.

Transferable/Key Skills and other attributes:

- The obtained knowledge is a basis for all subjects that can take advantage of Internet.

Metode poučevanja in učenja:

Predavanja
Računalniške vaje

Learning and teaching methods:

Lectures
Computer exercises

Načini ocenjevanja:

Delež (v %) /

Weight (in %)

Assessment:

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
<u>Sprotno preverjanje:</u>		<u>Mid-term testing:</u>
Pisni testi – teorija (3 do 5 pisnih testov na semester)	30%	Written tests – theory (from 3 to 5 written tests during the semester)
Projekt	40%	Project
<u>Izpit:</u>		<u>Exams:</u>

<p>Pisni izpit – praktični del</p> <p>Vsaka izmed naštetih obveznosti mora biti opravljena s pozitivno oceno.</p> <p>Opravljene sprotne obveznosti so pogoj za pristop k izpitu.</p>	<p>30%</p>	<p>Written exam – practical part</p> <p>Each of the mentioned commitments must be assessed with a passing grade.</p> <p>Passing grades of all mid-term testings are required for taking the exam.</p>
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Reference nosilca / Lecturer's references:

<ol style="list-style-type: none"> 1. BREŠAR, Boštjan, JAKOVAC, Marko, KATRENIČ, Ján, SEMANIŠIN, Gabriel, TARANENKO, Andrej. On the vertex k-path cover. <i>Discrete appl. math.</i> [Print ed.], 2013, vol. 161, iss. 13/14, str. 1943-1949, doi: 10.1016/j.dam.2013.02.024. [COBISS.SI-ID19859464] 2. JAKOVAC, Marko, TARANENKO, Andrej. On the k-path vertex cover of some graph products. <i>Discrete math.</i> [Print ed.], 2013, vol. 313, iss. 1, str. 94-100. http://dx.doi.org/10.1016/j.disc.2012.09.010, doi: 10.1016/j.disc.2012.09.010. [COBISS.SI-ID19464968] 3. TARANENKO, Andrej, VESEL, Aleksander. 1-factors and characterization of reducible faces of plane elementary bipartite graphs. <i>Discuss. Math., Graph Theory</i>, 2012, vol. 32, no. 2, str. 289-297, doi: 10.7151/dmgt.1607. [COBISS.SI-ID 19104264] 4. TARANENKO, Andrej, ŽIGERT PLETERŠEK, Petra. Resonant sets of benzenoid graphs and hypercubes of their resonance graphs. <i>MATCH Commun. Math. Comput. Chem. (Krag.)</i>, 2012, vol. 68, no. 1, str. 65-77. http://www.pmf.kg.ac.rs/match/content68n1.htm. [COBISS.SI-ID 16051990] 5. KLAVŽAR, Sandi, SALEM, Khaled, TARANENKO, Andrej. Maximum cardinality resonant sets and maximal alternating sets of hexagonal systems. <i>Comput. math. appl. (1987)</i>. [Print ed.], 2010, vol. 59, no. 1, str. 506-513. http://dx.doi.org/10.1016/j.camwa.2009.06.011. [COBISS.SI-ID 15383641]
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