

UČNI NAČRT PREDMETA / COURSE SYLLABUS						
<b>Predmet:</b>		Izbrana poglavja iz računalništva in informatike				
<b>Course title:</b>		Topics in computer and information science				
<b>Študijski program in stopnja</b> Study programme and level		<b>Študijska smer</b> Study field		<b>Letnik</b> Academic year	<b>Semester</b> Semester	
Interdisciplinarni magistrski študijski program Računalništvo in matematika		ni smeri		1 ali 2	prvi	
Interdisciplinary Masters study programme Computer Science and Mathematics		none		1 or 2	first	
<b>Vrsta predmeta / Course type</b>				izbirni		
<b>Univerzitetna koda predmeta / University course code:</b>				63536		
<b>Predavanja</b> Lectures	<b>Seminar</b> Seminar	<b>Vaje</b> Tutorial	<b>Klinične vaje</b> work	<b>Druge oblike študija</b>	<b>Samost. delo</b> Individ. work	<b>ECTS</b>
45		30			105	6
<b>Nosilec predmeta / Lecturer:</b>		Zoran Bosnić				
<b>Jeziki / Languages:</b>		<b>Predavanja / Lectures:</b>		slovenski/Slovene, angleški/English		
		<b>Vaje / Tutorial:</b>		slovenski/Slovene, angleški/English		
<b>Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:</b>				<b>Prerequisites:</b>		
<b>Vsebina:</b>				<b>Content (Syllabus outline):</b>		

<p>Predmet je namenjen uveljavljenim gostujočim predavateljem iz tujine ali iz prakse. Ti bodo študentom v okviru predmeta predstavili nove odmevne ideje, metodološke preboje ali uporabne rešitve s področja računalništva in informatike, ki kot take še niso vključene v vsebine obstoječih predmetov.</p> <p>Podrobna vsebina se določi vsako leto posebej glede na predloge in strokovno usmeritev izbranega predavatelja.</p>	<p>The course is intended for established visiting researchers and lecturers and for experts in computer and information science which will introduce students to topics that are interesting due to recent theoretical findings and methodological breakthroughs or for their applicative value, and are as such not included into the existing curriculum.</p> <p>The specific contents of the course is determined yearly.</p>
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### **Temeljni literatura in viri / Readings:**

<p>Thomas H. Cormen, Charles E. Leiserson...: Introduction to Algorithms, 2nd edition, MIT Press, 2001.</p> <p>Graham, Ronald L., Knuth, Donald E., Patashnik, Oren (1994). Concrete Mathematics (second ed.). Reading, MA: Addison-Wesley Publishing Company. pp. xiv+657. ISBN 0-201-55802-5. MR1397498</p> <p>O'Regan, Gerard: A Brief History of Computing, Springer, 2008.</p> <p>Dodatna literatura se predpiše vsako leto posebej glede na vsebino in predloge izbranega predavatelja.</p> <p>Additional literature is given yearly, with respect to the current topic of the course.</p>
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### **Cilji in kompetence:**

<p>Cilj predmeta je spoznati teoretične osnove in praktične implementacije novih metod in tehnologij na področju računalništva in informatike.</p>
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### **Objectives and competences:**

<p>The goal of the course is to introduce basic theoretical ideas as well as practical implementations of new methods and technologies in the field of computer and information science</p>
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### **Predvideni študijski rezultati:**

<p>Po uspešnem zaključku tega predmeta bo študent:</p> <ul style="list-style-type: none"> <li>-spoznal nova področja in prijeme, ki v obstoječem predmetniku še niso zajeta,</li> <li>-uporabljal najnovejše pristope in tehnike z izbranega področja računalništva in informatike,</li> </ul>
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### **Intended learning outcomes:**

<p>After the completion of the course a student will:</p> <ul style="list-style-type: none"> <li>-obtain a broader overview and understanding of the field of study, and of up to date methods and concepts,</li> <li>-apply current approaches and techniques from</li> </ul>
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-razumeval primernosti izbranih pristopov s področja računalništva in informatike za reševanje praktičnih primerov v poslovnih okoljih,

-reševal kompleksne probleme, razvijal kompleksne sisteme.

the specific field of computer and information science,

-understand the advantages of the chosen approaches in computer and information science in

solving specific practical tasks,

-solve complex problems, design complex systems.

**Metode poučevanja in učenja:**

Predavanja, laboratorijske vaje

**Learning and teaching methods:**

Lectures, lab excersises

Delež (v %) /

**Načini ocenjevanja:**

Weight (in %)

**Assessment:**

<p>Način (pisni izpit, ustno izpraševanje, naloge, projekt):</p> <p>Sprotno preverjanje (domače naloge, kolokviji in projektno delo)</p> <p>Končno preverjanje (pisni in ustni izpit)</p> <p>Ocene: 6-10 pozitivno, 5 negativno</p> <p>(v skladu s Statutom UL)</p>	<p>50%</p> <p>50%</p>	<p>Type (examination, oral, coursework, project):</p> <p>Continuing (homework, midterm exams, project work)</p> <p>Final: (written and oral exam)</p> <p>Grading: 6-10 pass, 5 fail.</p>
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**Reference nosilca / Lecturer's references:**

Zoran Bosnić:

– BOSNIĆ, Zoran, KONONENKO, Igor. Estimation of individual prediction reliability using the local sensitivity analysis. Applied intelligence, ISSN 0924-669X. [Print ed.], Dec. 2008, vol. 29, no. 3, str. 187-203, ilustr. [COBISS.SI-ID 6174548]

- BOSNIĆ, Zoran, KONONENKO, Igor. Comparison of approaches for estimating reliability of individual regression predictions. *Data & Knowledge Engineering*, ISSN 0169-023X. [Print ed.], Dec. 2008, vol. 67, no. 3, str. 504-516, ilustr. [COBISS.SI-ID 6923604]
- BOSNIĆ, Zoran, KONONENKO, Igor. Automatic selection of reliability estimates for individual regression predictions. *Knowledge engineering review*, ISSN 0269-8889, 2010, vol. 25, no. 1, str. 27-47, graf. prikazi. [COBISS.SI-ID 7606356]
- BERDAJS, Jan, BOSNIĆ, Zoran. Extending applications using an advanced approach to DLL injection and API hooking. *Software*, ISSN 0038-0644, 2010, vol. 40, no. 7, str. 567-584. [COBISS.SI-ID 7694932]
- OCEPEK, Uroš, RUGELJ, Jože, BOSNIĆ, Zoran. Improving matrix factorization recommendations for examples in cold start. *Expert systems with applications*, ISSN 0957-4174. [Print ed.], Nov. 2015, vol. 42, no. 19, str. 6784-6794, ilustr. [COBISS.SI-ID 1536335043]