

UČNI NAČRT PREDMETA / COURSE SYLLABUS (leto / year 2016/17)						
Predmet:	Magistrsko delo					
Course title:	Master's thesis					
Študijski program in stopnja Study programme and level	Študijska smer Study field			Letnik Academic year	Semester Semester	
Interdisciplinarni magistrski študijski program Računalništvo in matematika	ni smeri			2	prvi in drugi	
Interdisciplinary Master's study programme Computer Science and Mathematics	none			2	first and second	
Vrsta predmeta / Course type				obvezni / compulsory		
Univerzitetna koda predmeta / University course code:				M2012		
Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
	50				400	15
Nosilec predmeta / Lecturer:				prof. dr. Andrej Bauer, prof. dr. Zoran Bosnić		
Jeziki / Languages:	Predavanja / Lectures:			slovenski / Slovene, angleški / English		
	Vaje / Tutorial:			slovenski / Slovene, angleški / English		
Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:				Prerequisites:		
Vpis v letnik študija.				Enrolment in the programme.		
Vsebina:				Content (Syllabus outline):		

<p>Predmet je namenjen pripravi in izdelavi magistrskega dela.</p>	<p>The course is intended for preparing and completing the masters thesis.</p>
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Temeljni literatura in viri / Readings:

<p>Justin Zobel, Writing for Computer Science, second edition, Springer, 2004.</p> <p>D. Evans and P. Gruba, How to Write a Better Thesis, Second edition, Melbourne University Press, Melbourne, 2002.</p> <p>Herman T. : Ethics and Technology: Controversies, Questions, and Strategies for Ethical Computing, Wiley, 3 edition, 2010.</p> <p>Članki v raziskovalnih revijah in znanstvene monografije, ki jih študentje potrebujejo pri pisanju svojega magistrskega dela.</p>
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Cilji in kompetence:

<p>Cilj predmeta je spoznati širše področje in relevantno literaturo s področja teme magistrskega dela in razumeti zastavljene probleme in poiskati smiselne teoretične in ustrezne programske rešitve, napisati magistrsko delo in izdelati programsko podporo.</p>
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Objectives and competences:

<p>The goal of the course is to obtain insight into and an overview of the wide field of the topic of the master thesis, to get acquainted with the relevant literature, understand the addressed problems and find suitable theoretical and programming solutions, and finally to write the thesis and produce the necessary computer support.</p>

Predvideni študijski rezultati:

<p>Znanje in razumevanje: Študenti spoznavajo samostojno raziskovalno delo, spoznavajo literaturo in obstoječe rešitve in iščejo nove prijeme za reševanje zastavljenih problemov.</p> <p>Uporaba: Pridobivanje znanja in izkušenj pri iskanju lastnih rešitev teoretičnih in praktičnih problemov, pri pisanju strokovnih del in predstavitvi lastnih rezultatov.</p>

Intended learning outcomes:

<p>Knowledge and understanding: Students meet with the challenge of individual research work, are acquainted to the literature and the existing solutions and find new approaches to the posed problems.</p> <p>Application: Knowledge and experience in individually solving theoretical and practical problems, writing technical texts and presenting obtained</p>
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Refleksija:

Razumevanje primernosti izbranih pristopov s področja računalništva in informatike za reševanje praktičnih primerov v poslovnih okoljih.

Prenosljive spretnosti - niso vezane le na en predmet:

Reševanje kompleksnih problemov, razvoj kompleksnih sistemov, predstavitev rešitev v obliki zaključenega pisnega izdelka in ustne predstavitve.

results and solutions.

Reflection:

Understanding the advantages of the chosen approaches in computer and information science in solving specific practical tasks.

Transferable skills: Solving complex problems, designing complex systems, presenting problems and their solutions in the form of a written and oral presentation.

Metode poučevanja in učenja:

Seminarsko in samostojno delo pod vodstvom mentorja.

Learning and teaching methods:

Seminar work and individual work under the advisor's guidance.

Načini ocenjevanja:

Delež (v %) /
Weight (in %)

Assessment:

Način (pisni izpit, ustno izpraševanje, naloge, projekt):		Type (examination, oral, coursework, project): Continuing (intermediate written and oral reports) Final: (grading the written thesis and the presentation) Grading: 6-10 pass, 1-5 fail (according to the rules of University of Ljubljana)
Sprotno preverjanje (vmesna pisna in ustna poročila in predstavitve)		
Končno preverjanje (ocena magistrskega dela in zagovora)		
Ocene: 6-10 pozitivno, 1-5 negativno	30%	
(v skladu s Statutom UL)	70%	

Reference nosilca / Lecturer's references:

Andrej Bauer:

BAUER, Andrej, KAVKLER, Iztok. A constructive theory of continuous domains suitable for implementation. V: Joint Workshop Domains VIII - Computability over Continuous Data Types, Novosibirsk, September 11-15, 2007, (Annals of pure and applied logic, ISSN 0168-0072, Vol. 159, iss. 3). Amsterdam: Elsevier, 2009, str. 251-267. [COBISS.SI-ID 15329625]

BAUER, Andrej, STONE, Christopher A. RZ: a tool for bringing constructive and computable mathematics closer to programming practice. Journal of logic and computation, ISSN 0955-792X, 2009, vol. 19, no. 1, str. 17-43. [COBISS.SI-ID 15325785]

BAUER, Andrej, TAYLOR, Paul. The Dedekind reals in abstract Stone duality. Mathematical structures in computer science, ISSN 0960-1295, 2009, vol. 19, iss. 4, str. 757-838. [COBISS.SI-ID 15322201]

Zoran Bosnić:

OCEPEK, Uroš, BOSNIĆ, Zoran, NANČOVSKA ŠERBEC, Irena, RUGELJ, Jože. Exploring the relation between learning style models and preferred multimedia types. Computers & Education, ISSN 0360-1315. [Print ed.], Nov. 2013, vol. 69, str. 343-355. [COBISS.SI-ID 10047572]

BOSNIĆ, Zoran, VRAČAR, Petar, RADOVIĆ, Miloš D., DEVEDŽIĆ, Goran, FILIPOVIĆ, Nenad D., KONONENKO, Igor. Mining data from hemodynamic simulations for generating prediction and explanation models. IEEE transactions on information technology in biomedicine, ISSN 1089-7771. [Print ed.], Mar. 2012, vol. 16, no. 2, str. 248-254, ilustr. [COBISS.SI-ID 9026900]

POGORELC, Bogdan, BOSNIĆ, Zoran, GAMS, Matjaž. Automatic recognition of gait-related health problems in the elderly using machine learning. Multimedia tools and applications, ISSN 1380-7501, 2012, vol. 58, no. 2, str. 333-354, graf. prikazi. [COBISS.SI-ID 8773460]