

UČNI NAČRT PREDMETA / COURSE SYLLABUS						
<b>Predmet:</b>		Individualno raziskovalno delo				
<b>Course title:</b>		Research				
<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	
3MaFi		Matematika		3	prvi in drugi	
3MaFi		Mathematics		3	first and second	
<b>Vrsta predmeta / Course type</b>				obvezni		
<b>Univerzitetna koda predmeta / University course code:</b>						
<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>
					1800	60
<b>Nosilec predmeta / Lecturer:</b>		prof. Alexander Keith Simpson				
<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>Študent se posveti jedru doktorskega študija, raziskovalnemu delu. Temeljito preuči vsebine, ki so tesno povezane z njegovim raziskovalnim delom, razišče pristope za reševanje zastavljenega problema in postavi osnovne domneve. Z raziskovanjem posebnih primerov počasi pridobiva znanje za kar se da splošno rešitev problema doktorske disertacije. Pripravi in temeljito izdela članke, v katerih predstavi rešitev problema. Članke pošlje v evalvacijo za objavo v uglednih znanstvenih revijah s področja, na katerem raziskovalno dela.</p>	<p>The student dedicates themselves to the research that forms the core of their doctoral studies. This includes a thorough study of closely related research, an exploration of approaches to solving problems, and the identification of underlying assumptions. Through the exploration of special cases, the student gradually acquires the knowledge needed to obtain a general solution to the research problem being addressed in the doctoral dissertation. The student prepares research articles presenting this research. The articles are submitted for publication in reputable scientific journals in the field of research.</p>
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**Temeljni literatura in viri / Readings:**

<p>Izbira temeljne literature je pomemben del raziskovalnega dela. Študent jo izbere sam z morebitnimi nasveti mentorja.</p> <p>The identification of relevant literature is an important part of research work. The student identifies the relevant literature themselves, with possible advice from the supervisor.</p>
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**Cilji in kompetence:**

<p>Študent reši zastavljeni problem doktorske disertacije in ga pripravi v obliki, ki je primerna za objavo v znanstveni reviji.</p>
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**Objectives and competences:**

<p>The student solves the proposed problem of the doctoral thesis, and prepares a relevant research articles for submission to scientific journals.</p>
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**Predvideni študijski rezultati:**

<p>Študent je, potem ko opravi predmet, sposoben samostojno nadaljevati raziskave na področju doktorske disertacije ali širše.</p>
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**Intended learning outcomes:**

<p>After the course is completed, a student is able to continue independent research in the field of the doctoral thesis or more widely.</p>
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**Metode poučevanja in učenja:**

**Learning and teaching methods:**

Samostojni študij in konzultacije.

Individual study and consultations.

Delež (v %) /

**Načini ocenjevanja:**

Weight (in %) **Assessment:**

Ocene: opravil, ni opravil

Grades: pass, fail.

100%

**Reference nosilca / Lecturer's references:**

Alexander Keith Simpson:

– AWODEY, Steve, BUTZ, Carsten, SIMPSON, Alex, STREICHER, Thomas. Relating first-order set theories, toposes and categories of classes. *Annals of pure and applied Logic*, ISSN 0168-0072. [Print ed.], 2014, vol. 165, iss. 2, str. 428-502. [COBISS.SI-ID 17089881]

– SIMPSON, Alex. Measure, randomness and sublocales. *Annals of pure and applied Logic*, ISSN 0168-0072. [Print ed.], 2012, vol. 163, iss. 11, str. 1642-1659. [COBISS.SI-ID 17091161]

– M. Mio and A. Simpson. Lukasiewicz mu-calculus. *Fundamenta Informaticae*, 150(3–4), pp. 317–346, 2017. <https://doi.org/10.3233/FI-2017-1472> [COBISS.SI-ID 18320729]